



## INITIAL STUDY/MITIGATED NEGATIVE DECLARATION NO. PA080051

### FOR THE RANCHO LAS LOMAS PROJECT

Prepared for | County of Orange  
OC Planning  
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September 2012





# MITIGATED NEGATIVE DECLARATION

## OC PUBLIC WORKS/OC PLANNING

300 N. FLOWER STREET  
P. O. BOX 4048  
SANTA ANA, CALIFORNIA 92702-4048

In accordance with Orange County Board of Supervisor's policies regarding implementation of the California Environmental Quality Act, the County of Orange has conducted an Initial Study to determine whether the following project may have a significant adverse effect on the environment. On the basis of that study, the County of Orange hereby finds that the proposed project will not have a significant adverse effect on the environment and does not require the preparation of an Environmental Impact Report because either the proposed project:

- a. has or creates no significant environmental impacts requiring mitigation; or
- b. **will not create a significant adverse effect, because the Mitigation Measures described in the initial study have been added to the project.**

The environmental documents, which constitute the Initial Study and provide the basis and reasons for this determination are attached and hereby made a part of this document.

### PROJECT:

Title: Rancho Las Lomas Project File No: PA080051

Project Description: The applicant is requesting a Site Development Permit for the following: legalize a single-family dwelling and three (3) caretaker's residences; legalize grading in excess of 5,000 cubic yards and alternative setbacks; and to allow for the construction of a 174-square foot accessory gazebo. A Use Permit for the following: legalize existing low intensity commercial outdoor recreation, wedding chapel, zoological garden, horticultural preserve and retreat/conference center uses; legalize existing over-height walls within the front yard setback; and legalize existing off-street parking modifications.

Project Location: The proposed project is located entirely within unincorporated Orange County (see location map). The street address is: 19191 Lawrence Canyon, Silverado, CA 92676.

Project Proponent or Applicant: Jeannie Lawrence

Division/Department

Responsible for Proposed Project: Current & Environmental Planning Division

Address: 300 N. Flower Street, Room No. 130, Santa Ana, CA 92702-4048

Project & CEQA Contact Person: John Moreland Telephone: (714) 667-8806

### NOTICE:

The Mitigated Negative Declaration may become final unless written comments are received by the office listed above by 4:30 p.m. on October 25, 2012. If you wish to comment on the appropriateness or adequacy of this document, please address your written comments to our finding that the project will not have a significant unmitigated adverse effect on the environment: (1) identify the environmental effect(s), why they would occur, and why they would be significant, and (2) suggest any mitigation measures which you believe would eliminate or reduce the effect to an acceptable level. Regarding item (1) above, explain the basis for your comments and submit any supporting data or references.

Dated: 09/24/12

**NOTE:** This document and supporting attachments are provided for review by the general public. This is an information document about environmental effects only. Supplemental information is on file and may be reviewed in the office listed above. The decision-making body will review this document and potentially many other sources of information before considering the proposed project.



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## **SECTION 1.0 INTRODUCTION**

### **1.1 PURPOSE OF THE INITIAL STUDY**

The purpose of this Initial Study/Mitigated Negative Declaration (IS/MND) is to describe the proposed Rancho Las Lomas Project located within unincorporated Orange County and to provide an evaluation of potential environmental effects associated with the project's construction and use. The IS has been prepared pursuant to the California Environmental Quality Act (CEQA), as amended (*California Public Resources Code* §21000 et seq.), and in accordance with the State CEQA Guidelines (*California Code of Regulations*, Title 14, §15000 et seq.).

Pursuant to Section 15367 of the State CEQA Guidelines, the County of Orange (County) is the lead agency for the project. The lead agency is the public agency that has the principal responsibility for carrying out or approving a project. The County, as lead agency, has the authority for project approval and adoption of the environmental documentation.

Section 15063(c) of the CEQA Guidelines identifies the purposes of an Initial Study as follows:

- (1) To provide the Lead Agency with information to use as the basis for deciding whether to prepare an [environmental impact report (EIR)] or a Negative Declaration;
- (2) To enable an applicant or Lead Agency to modify a project, mitigating adverse impacts before an EIR is prepared, thereby enabling the project to qualify for a Negative Declaration;
- (3) To assist in the preparation of an EIR, if one is required, by focusing the EIR on the effects determined to be significant, identifying the effects determined not to be significant, explaining the reasons for determining that potentially significant effects would not be significant, and identifying whether a program EIR, tiering, or another appropriate process can be used for analysis of the project's environmental effects;
- (4) To facilitate environmental assessment early in the design of a project;
- (5) To provide documentation of the factual basis for the finding in a Negative Declaration that a project will not have a significant effect on the environment;
- (6) To eliminate unnecessary EIRs; and
- (7) To determine whether a previously prepared EIR could be used with the project.

In accordance with Section 21082.1(c) of CEQA and Section 15074(b) of the CEQA Guidelines, the County authorized the preparation of this IS/MND and has reviewed and revised, as necessary, all submitted drafts and technical studies to reflect its own independent judgment, including (1) reliance on applicable County personnel and (2) review of all technical reports and pertinent data. Data for this IS/MND was obtained from consultation with affected and other relevant agencies; review of available technical studies, reports, guidelines, and data; site visits; and other studies prepared for the project.

### **1.2 SUMMARY OF FINDINGS**

Based on the environmental checklist form prepared for the project (included in Section 4.0) and supporting environmental analysis (provided in Section 5.0), the proposed project would have no impact or a less than significant impact in the following environmental impact areas: Land Use and Planning, Agriculture and Forestry Resources, Population and Housing,, Air Quality, Recreation, Mineral Resources, and Utilities and Service Systems impacts. The proposed

project has the potential to have significant impacts in the area of Geology and Soils, Hydrology and Water Quality, Noise, Biological Resources, Aesthetics, Cultural/Scientific Resources, Hazards and Hazardous Materials, Public Services, and Transportation/Traffic unless the recommended mitigation measures described herein are incorporated into the project.

According to the CEQA Guidelines, it is appropriate to prepare a mitigated negative declaration (MND) for the proposed project because, after incorporation of the recommended mitigation measures, potentially significant environmental impacts would be eliminated or reduced to a level considered less than significant.

### **1.3 PROJECT APPROVAL**

Notices of the availability of the IS/MND for review and comment have been posted on the project site and at the County Clerk/Official Record, Hall of Administration (10 Civic Center Plaza, Santa Ana), Osborne Building (300 N. Flower, Santa Ana) and online at <http://www.ocplanning.net/CurrentProjects.aspx>. Engineering plans and all related reports and documentation are available for review at the County of Orange, OC Planning offices, located at 300 North Flower Street in Santa Ana, California. There will be a 30-day public review period for the IS/MND in accordance with §15073 of the CEQA Guidelines. In reviewing the IS and proposed MND, the reviewer should focus on the sufficiency of the document in identifying and analyzing the potential impacts on the environment and ways in which components of the project mitigate or avoid potentially significant project effects. Comments on the analysis contained herein may be sent to:

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OC Planning  
300 N. Flower Street, 1<sup>st</sup> Floor  
Santa Ana, CA 92703  
Email: [John.Moreland@ocpw.ocgov.com](mailto:John.Moreland@ocpw.ocgov.com)  
Fax: (714) 667-0895

Following receipt and evaluation of comments from agencies, organizations, and/or individuals, the County of Orange will determine whether any substantial new environmental issues have been raised. If so, further documentation, such as an environmental impact report (EIR) or an expanded IS, may be required. If not, the project and the environmental documentation are tentatively scheduled to be submitted to the County of Orange Planning Commission on November 28, 2012.

### **1.4 REPORT ORGANIZATION**

The document has been organized into the following sections:

- **Section 1 – Introduction.** This section provides an introduction and overview describing the conclusions of the IS.
- **Section 2 – Project Location, Background, and Environmental Setting.** This section provides an overview of the proposed project location; relevant background information; and a description of existing on-site and surrounding land uses.
- **Section 3 – Project Description.** This section details key project characteristics and includes a list of anticipated discretionary actions.
- **Section 4 – Environmental Checklist Form.** The completed environmental checklist form provides an overview of the potential impacts that may or may not result from

project implementation. The environmental checklist form also includes “mandatory findings of significance” required by CEQA.

- **Section 5 – Environmental Evaluation, Mitigated Negative Declaration.** This section contains an analysis of environmental impacts identified in the environmental checklist. As necessary, the narrative responses are followed by a mitigation program composed of standard conditions of approval (SCs) and mitigation measures (MMs) that have been recommended to eliminate any potentially significant effects or reduce them to a level that is considered less than significant.
- **Section 6 – Report Preparers.** This section identifies the individuals responsible for preparing the IS and proposed MND.
- **Section 7 – References.** This section identifies resources used to prepare this document.

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## **SECTION 2.0 PROJECT LOCATION, BACKGROUND, AND ENVIRONMENTAL SETTING**

The proposed Rancho Las Lomas Project would permit existing structures on site; facilitate the completion of a gazebo (Structure A-C); and allow three free-span bridges to be installed on the site, in place of three existing bridge/culvert structures. The majority of development on site took place between 1977 and 1987 (refer to Project Background, Section 2.2). Since this time, multiple geotechnical investigations have been conducted on the subject property. In addition, a traffic study was prepared by Stantec Consulting Services, Inc. in September 2012 and a hydrology study was prepared by Trithis Engineering in 2002. The hydrology report was updated in April 2009 and again in February 2012. Construction of the proposed gazebo would not begin until approved by the County of Orange.

### **2.1 PROJECT LOCATION**

The proposed project is located entirely within unincorporated Orange County (refer to Exhibit 1, Regional Location) at 19191 Lawrence Canyon in Silverado, California. The property is bordered on the northwest and southeast by large residential estates; on the southwest by a residential tract; and on the northeast by Santiago Canyon Estates, a tract community on the opposite side of Santiago Canyon Road (see Exhibit 2, Local Vicinity).

Access to the project site is provided by a driveway on Santiago Canyon Road at Lawrence Canyon Road opposite Crystal Canyon Road. Santiago Canyon Road becomes El Toro Road south of Live Oak Canyon Road, southeast of the project site. The Foothill Transportation Corridor (State Route [SR] 241) is located south of the project site. Full access to SR-241 is provided by Portola Parkway approximately two miles southwest of Rancho Las Lomas.

### **2.2 PROJECT BACKGROUND AND HISTORY**

Rancho Las Lomas is located on land that was part of a 10,688-acre Mexican land grant bequeathed to the Serrano family in 1846. Prior to the land grant, the land was inhabited by Native Americans. At the time of the land grant, the area was known as Rancho Cañada de los Alisos (the Valley of the Sycamores). The area then became known as El Toro, named after the bulls that roamed Don Jose Serrano's ranch. For more than a century, the land remained property of Don Jose and his family until financial problems forced him to turn the land over to private interests (Lake Forest, 2012). In 1908, the United States government decided to preserve the neighboring territory to the east and call it the Cleveland National Forest; the project area has since been sold twice (Rancho Las Lomas n.d.).

In the early 1900s, Dwight Whiting, a resident of the area, planted 400 acres of fast-growing eucalyptus trees in this growing agricultural community in response to the California lumber shortage. Shortly following World War II, residential, commercial, and industrial development began to replace the farmland in the area, including the Rancho Las Lomas site. In the more recent past, the project site had been used for cattle grazing.

The Lawrence family purchased the property in the 1970s. As stated previously, approval of the proposed project would permit the existing structures on site; allow the construction of a gazebo (Structure A-C); and allow three free-span bridges to be installed on the site, in place of three existing bridge/culvert structures. The bridges were originally constructed in the 1970s (to replace original rotting wood bridges). Unpermitted development included the demolition of a portion of the foundation and retaining wall for the previously proposed bed and breakfast

facilities. All development halted when it was discovered that proper permitting had not been obtained.

## **2.3 EXISTING PROJECT SITE CONDITIONS**

Rancho Las Lomas is comprised of approximately 21.4 acres located along the west side of Santiago Canyon Road about 1,000 feet northwest of its intersection with Live Oak Canyon Road (see Exhibit 3, Aerial Photograph) and is within the Cleveland National Forest Congressional Boundary. The natural terrain of the site is characterized by gentle to moderately sloping hillsides adjoining the canyon bottom of Aliso Creek in the eastern one-third, and steeper more rugged hillside ascending westward in the remaining two-thirds of the site. Maximum topographic relief is approximately 231 feet, ranging from a high of 1,346 feet above mean sea level (msl) near the southwestern corner of the property, to a low of 1,115 feet above msl in the southeastern corner. The property is bordered on the northwest and southeast by large residential estates, on the southwest by a residential tract, and on the northeast by Santiago Canyon Road.

### **2.3.1 STRUCTURE INVENTORY**

Rancho Las Lomas is privately owned and serves as a private residence as well as a wedding and corporate affair venue. This multifaceted facility offers the following activities and facilities: low intensity commercial outdoor recreation with a predominately open space character; a wedding chapel; zoological gardens; horticulture preserves; a retreat/banquet facility/conference center; accessory buildings and structures; caretaker's residences; and a single-family dwelling. There are 33 structures that currently exist on the property (see Exhibit 4, Site Plan). These structures include bridal quarters and a chapel; an employee cottage; a conference center with a commercial kitchen, restroom facilities, office, storage; a garage; a ranch house; a homestead barn and two corrals; a pump house; a kiosk; a windmill; existing bridge/culvert structures within a section of Aliso Creek that extends through the property; and a water tower with signage. There are also several cages that house a number of bird species and several large felines (Bengal tigers, African servals, Canadian lynx and caracals). Additionally, palm species are grown on the project site as part of the horticultural use. This use consists of selling palm species primarily to nurseries in the area; potential customers are able to view the palm stock by appointment only and customers are responsible for digging up, boxing, and transporting purchased trees. These palm tree species are therefore removed on an ongoing basis as part of this on-site horticultural use.

One new structure is proposed for construction within the Rancho Las Lomas property (refer to Section 3.1, Project Characteristics, Table 3.1-1, Structures to be Developed). The proposed structure is a gazebo to be constructed on top of an existing pad (Structure A-C). The proposed project also includes the demolition and replacement of three existing culverts/bridges located at the same location within Aliso Creek with free-span bridges, as follows: one existing pedestrian bridge/culvert structure will be removed and replaced with one free-span pedestrian bridge, and two existing vehicle bridge/culvert structures will be removed and replaced with two free-span vehicle bridges (refer to Section 5.4, Biological Resources).

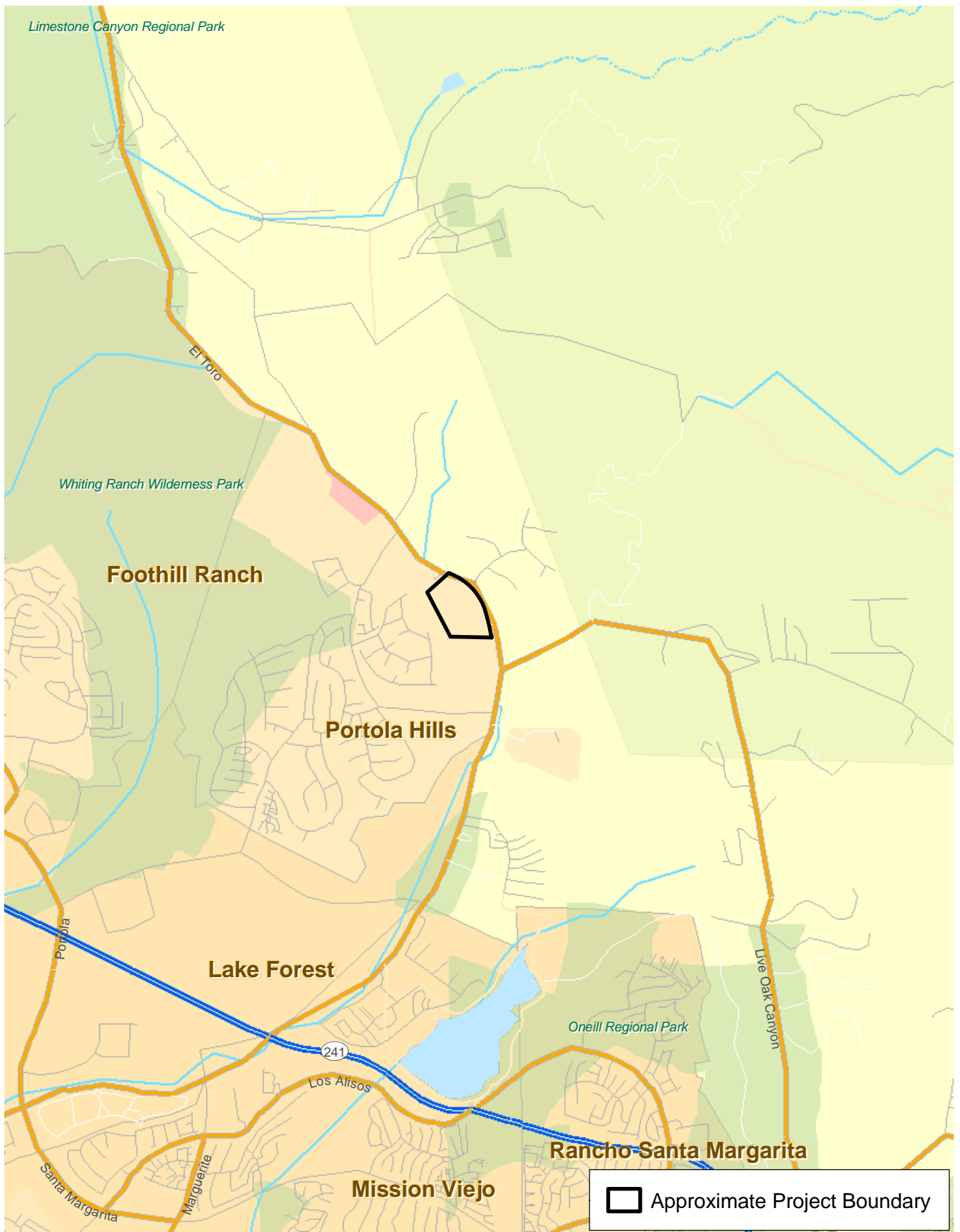
### **2.3.2 BIOLOGICAL CONDITIONS**

The natural terrain of the Rancho Las Lomas site is characterized by gentle to moderately sloping terraces adjoining the canyon bottom of Aliso Creek in the eastern one-third of the project site, and steeper, more rugged hillside ascending westward into the remaining two-thirds of the site. Maximum topographic relief is approximately 231 feet, ranging from a high of





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## Local Vicinity

Rancho Las Lomas



0.5 0.25 0 0.5 Miles

## Exhibit 2

**Bonterra**  
CONSULTING

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## Aerial Photograph

Rancho Las Lomas



0.5 0.25 0 0.5 Miles

Exhibit 3

**Bonterra**  
CONSULTING

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## SITE PLAN

1" = 40' 0"



## STRUCTURE TABULATION

ALIGNMENT	BUILDING USE	OCCUPANCY	CONST. TYPE	NO. OF STORIES	FOOTPRINT AREA	ASSOC. AREA	SO. FT. / OCCUPANT LOAD	PARKING PLOD	(E) OR (P) CURRENT BLDG. STATUS	BUILDING HEIGHT
"C"	RESTROOMS	R-3	V-WR	1	70 S.F.	—	70 S.F. MAX. O.L. = 2	N/A	(E) BUILDING	10' 0"
"D"	ENCLOSED STAIRWAY AND DECK	—	V-WR	1	905 S.F.	—	—	N/A	(E) BLDG. N. USE AS STAIRWAY (E) DECK	27'-0"
"E"	BIRDS QUARTERS	B	V-WR	1	470 S.F.	COURTYARD PATIO DECK	410 S.F. MAX. O.L. = 4	1 SPACE	(E) BUILDING	15'-4"
"F"	EXTERIOR GARAGE, HANDICAP RESTROOMS, STORAGE	B/U	V-WR	2	455 S.F.	—	580 S.F. MAX. O.L. = 16	7 SPACES	(E) BUILDING	34'-3"
"G"	EMP. DIVER COTTAGE (employee's residence)	R-3	V-WR	1	324 S.F.	317 S.F.	324 S.F. MAX. O.L. = 1	2 SPACES	(E) BUILDING	11'-6"
"H"	CONFERENCE CENTER, PRE-RETENTION OFFICE, STORAGE	A-3	V-WR	1	5,397 S.F.	5,397 S.F. O.L. = 244	—	74 SPACES	(E) BUILDING	27'-10"
"J"	BIRD CAGE	—	V-WR	1	175 S.F.	—	175 S.F.	N/A	(E) BUILDING	16'-8"
"K"	BIRD CAGE	—	V-WR	1	88 S.F.	—	75 S.F.	N/A	(E) BUILDING	12'-2"
"L"	RANCH HOUSE (single family dwelling)	R-3	V-WR	1	921 S.F.	885 S.F.	—	2 SPACES	(E) BUILDING	12'-1"
"M"	ANIMAL CAGES	M-3	V-WR	1	640 S.F.	—	640 S.F. O.L. = 3	N/A	(E) BARN	14'-0"
"N"	FELINE CAGE	M-3	V-WR	1	490 S.F.	—	480 S.F. TOTAL 163 S.F. SPACES	N/A	(E) CAGE	13'-9"
"O"	UAPN	B	V-WR	2	1,078 S.F.	145 S.F.	2,136 S.F. O.L. = 7	3 SPACES	(E) BUILDING	18' 0"
"P"	GARAGE	M-1	V-WR	1	1,268 S.F.	—	1,268 S.F. O.L. = 7	2 SPACES	(E) GARAGE	12' 0"
"Q"	DUPLEX (single family dwelling)	R-3	V-WR	1	1,118 S.F.	DECK 570 S.F.	—	3 SPACES	(E) BUILDING	12'-0"
"S"	CAGES (3)	M-3	V-WR	1	2,404 S.F.	—	720 S.F.	N/A	(E) CAGES	10'-0"
"T"	CAGE	U-3	V-WR	1	1,078 S.F.	—	76 S.F.	N/A	(E) CAGE	17'-6"
"U"	BIRD CAGE	M-3	V-WR	1	3,993 S.F.	—	3,993 S.F.	N/A	(E) CAGE	9'-0"
"V"	BIRD CAGE	M-3	V-WR	1	22 S.F.	—	22 S.F.	N/A	(E) CAGE	9' 0"
"W"	PUMP HOUSE	S-2	V-WR	1	64 S.F.	—	64 S.F. O.L. = 2	N/A	(E) BUILDING	11'-1"
"X-A"	HATCH OFFICE ABOVE VALET BELOW	B	V-WR	2	173 S.F.	30 S.F.	348 S.F. O.L. = 1	2 SPACES	(E) BUILDING	18'-5"
"X-B"	STORAGE	H	V-WR	1	123 S.F.	—	23 S.F. O.L. = 2	1 SPACE	(E) BUILDING	10'-8"
"X-C"	GALEBO	B	V-WR	1	74 S.F.	—	174 S.F. O.L. = 2	N/A	(E) BUILDING	14'-5"
"X-D"	KIOSK	B	V-WR	1	74 S.F.	INCLUDED 47 S.F. E	174 S.F. O.L. = 2	N/A	(E) BUILDING	14'-5"
"X-E"	ENTRY GATE	R-3	V-WR	1	300 S.F.	INCLUDED 47 S.F. E	—	N/A	(E) BUILDING	23'-8"
"X-F"	"CREEK SIDE" RESTROOMS	R-3	V-WR	1	300 S.F.	N/A	—	N/A	(E) BUILDING	14'-0"
"X-G"	THELUS	H/A	V-WR	1	650 S.F.	N/A	—	N/A	(E) STRUCTURE	—
"X-H"	WATER TANK	H/A	N/A	N/A	N/A	N/A	N/A	N/A	(E) STRUCTURE	10'-3"
"X-I"	WATER TOWER	H/A	N/A	N/A	N/A	N/A	N/A	N/A	(E) STRUCTURE	19'-10"
"X-J"	FELINE CAGE	H/A	N/A	N/A	N/A	N/A	N/A	N/A	(E) CAGE	12'-0"
BRIDGE 1	CLEARSPAN BRIDGE	H/A	N/A	N/A	N/A	N/A	N/A	N/A	(E) BRIDGE TO BE IMPROVED	—
BRIDGE 2	CLEARSPAN BRIDGE	H/A	N/A	N/A	N/A	N/A	N/A	N/A	(E) BRIDGE TO BE IMPROVED	—
FOOT BRIDGE A	CLEARSPAN FOOT BRIDGE	H/A	N/A	N/A	N/A	N/A	N/A	N/A	(E) BRIDGE TO BE IMPROVED	—
FOOT BRIDGE B	CLEARSPAN FOOT BRIDGE	H/A	N/A	N/A	N/A	N/A	N/A	N/A	(E) BRIDGE	—

23,326 S.F. TOTAL	23,008 S.F. TOTAL	9 SPACES PROVIDED	9 SPACES REQUIRED
		188 SPACES PROVIDED	188 SPACES REQUIRED
		27 SPACES PROVIDED	27 SPACES REQUIRED
		310 SPACES PROVIDED	310 SPACES REQUIRED
		6 SPACES PROVIDED	6 SPACES REQUIRED

## KEY :

- LANDSCAPED AREA
- ALISO CREEK
- WATER ELEMENT
- DIRT CIRCULATION ELEMENT
- PAVED CIRCULATION ELEMENT
- RESIDENTIAL USE
- COMMERCIAL USE
- ANIMAL CAGE
- OTHER STRUCTURES
- EXISTING BRIDGE TO BE IMPROVED
- PROPOSED COMMERCIAL USE

## Site Plan

Rancho Las Lomas

## Exhibit 4

**Bonterra**  
CONSULTING

(08/27/12 MMD) Projects\Walton\J001\Graphics\Ex4\_SitePlans\_091412.pdf



1,346 feet above msl near the southwestern corner of the property, to a low of 1,115 feet above msl in the southeastern corner.

Vegetation on the site consists of a mix of ornamental vegetation and native oak woodlands. Oak woodlands are dominated by coast live oak (*Quercus agrifolia*), with an understory of periwinkle (*Vinca major*) and cape honeysuckle (*Tecoma capensis*). Aliso Creek passes through the property and supports coast live oak and western sycamore (*Platanus racemosa*) as co-dominant species along with scattered willows (*Salix* sp.) and non-native species such as deodar cedar (*Cedrus deodara*), pines (*Pinus* spp.), palm trees (multiple unidentified species), and pampas grass (*Cortaderia selloana*). Understory species in the riparian areas consist largely of periwinkle and cape honeysuckle with less common castor bean (*Ricinus communis*), cheeseweed (*Malva parviflora*), and non-native grasses. Other on-site vegetation consists of ornamental plantings dominated by deodar cedars, pines, palm trees, oleander (*Nerium oleander*), and Peruvian pepper trees (*Schinus molle*), as well as orange tree orchards.

Due to previous, unpermitted modifications, non-native invasive plant species have spread into Aliso Creek, which traverses the Rancho Las Lomas property, and potentially displaced native understory riparian species such as poison oak and wild grape (among others). As a result, the extent of riparian vegetation that would typically occur along the banks of Aliso Creek may have been affected by these man-made conditions. Any existing invasive exotic plant species shall be removed from within Aliso Creek. In addition, the proposed project includes planting native riparian plant species along Aliso Creek as retroactive mitigation for the loss of riparian resources resulting from the previously conducted vegetation removal.

### **2.3.3 GEOLOGIC AND SOIL CONDITIONS**

The geologic structure termed “Rancho Las Lomas” is situated on the southern flank of the Santa Ana Mountains in the northwest Peninsular Range Province of Southern California. The bedrock formations underlying the project site represent a relatively simple geologic structure that forms a consistent strata inclined to the southwest.

The natural terrain of the site is characterized by gentle to moderately sloping hillsides adjoining the canyon bottom of Aliso Creek in the eastern portion, and steeper, more rugged hillside ascending westward in the remaining area of the site. Approximately two-thirds of the site is located within this hillside area. Additional discussion of geotechnical information and identification of soil types present on site are provided in Section 5.6. Potential impacts related to liquefaction and slope stability are also identified in Section 5.6.

### **2.3.4 HYDROLOGY**

The drainage area consists of 678.5 acres and varies from an elevation of 2,200 feet above msl at the north end and an elevation of 1,111 feet above msl at the south end (Trithis Engineering 2012). At the time of the preparation of the Hydrology Report by Trithis Engineering on May 27, 2002, it was stated that the drainage area had undergone residential development to the east of Rancho Las Lomas, thereby modifying the natural state of the site, which had consisted of chaparral, open brush and some live oak trees. These findings were reconfirmed in February 2012 (Trithis Engineering 2012). Identification of impacts to the hydrologic conditions onsite with respect to development since the 2002 report and the proposed project is presented in Section 5.9.

### **2.3.5 ACCESS/CIRCULATION**

Access to the main project site is provided by a driveway on Santiago Canyon Road at Lawrence Canyon Road opposite Crystal Canyon Road. An additional driveway off Santiago Canyon provides access to the south end of the property. It is important to note that Santiago Canyon Road becomes El Toro Road south of Live Oak Canyon Road south of the project site and that the Foothill Transportation Corridor (SR-241) is located south of the project site. The internal circulation of the project site is comprised of at least a 14-foot wide two directional private roadways and 11-foot wide one-directional private roadways. Impacts to local and regional traffic volumes that would result from project implementation are identified in Section 5.16. Traffic data is included in Appendix D.

## SECTION 3.0 PROJECT DESCRIPTION

### 3.1 PROJECT CHARACTERISTICS

For project orientation, please refer to Exhibits 1 through 3, Regional Location, Local Vicinity, and Aerial Photograph, respectively. The proposed Rancho Las Lomas Project is a construction project that would construct one structure. This structure is described in Table 1 below (refer also to Exhibit 4, Site Plan):

**TABLE 1  
STRUCTURES TO BE DEVELOPED**

Proposed Structure	Proposed Use	Associated Uses	Proposed Development
A-C	Gazebo	–	Gazebo would be constructed on an existing graded pad.
Source: Andrade Architects, Inc. 2011.			

In addition to the structure above, the proposed project also includes the demolition and replacement of three existing culverts located within Aliso Creek with free-span bridges, as follows: one existing pedestrian bridge/culvert structure will be removed and replaced with one free-span pedestrian bridge, and two existing vehicle bridge/culvert structures will be removed and replaced with two free span vehicle bridges (refer to Section 5.4, Biological Resources).

### 3.2 DISCRETIONARY ACTIONS

This IS/MND is intended to serve as the primary environmental documentation for all actions associated with the proposed project, including all discretionary actions requested or required to implement the project construction and remediation. In addition, this is the primary reference document for the formulation and implementation of a mitigation monitoring program for the proposed project. Below is a list of permits for the proposed project.

Site Development Permits for the following:

- Legalize a single-family dwelling and three (3) caretakers' residences (four units total);
- Legalize grading in excess of 5,000 cubic yards and alternative setbacks; and
- To allow for the construction of a 174-square foot accessory gazebo.

Use Permits for the following:

- Legalize existing low intensity commercial outdoor recreation, wedding chapel, zoological garden, horticultural preserve and retreat/conference center uses;
- Legalize existing over-height walls within the front yard setback; and
- Legalize existing off-street parking modifications.

### 3.2.1 OTHER PUBLIC AGENCIES WHOSE APPROVAL MAY BE REQUIRED

Table 2 below, lists agencies with potential permit or approval authority over the proposed project.

**TABLE 2**  
**SUMMARY OF POTENTIAL PERMITS AND APPROVALS**

<b>Agency/Party</b>	<b>Permit or Approval</b>
U.S. Army Corps of Engineers	Clean Water Act Section 404 Permit
Regional Water Quality Control Board	Clean Water Act Section 401 Water Quality Certification
California Department of Fish and Game	<i>California Fish and Game Code</i> , Section 1602 Streambed Alternation Agreement

## SECTION 4.0 ENVIRONMENTAL CHECKLIST



### ENVIRONMENTAL ANALYSIS CHECKLIST

Negative Declaration Number PA # 080051

Rancho Las Lomas

ISSUES AND SUPPORTING DATA SOURCES:	Potential Significant Impact	Less than Significant Impact/MM	Less than Significant Impact	No Impact
<b>1. AESTHETICS. Would the project:</b>				
a. Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>2. AGRICULTURE &amp; FORESTRY RESOURCES. Would the project:</b>				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220[g]), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g])?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in the loss of forest land or conversion of forest land to non-forest use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ISSUES AND SUPPORTING DATA SOURCES:	Potential Significant Impact	Less than Significant Impact/MM	Less than Significant Impact	No Impact
<b>3. AIR QUALITY. Would the project:</b>				
a. Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>4. BIOLOGICAL RESOURCES. Would the project:</b>				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Services?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Services?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ISSUES AND SUPPORTING DATA SOURCES:	Potential Significant Impact	Less than Significant Impact/MM	Less than Significant Impact	No Impact
f. Conflict with provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>5. CULTURAL/SCIENTIFIC RESOURCES. Would the project:</b>				
a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>6. GEOLOGY AND SOILS. Would the project:</b>				
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii. Strong seismic ground shaking?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv. Landslides?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Be located on expansive soils, as defined in Table 18-1-B of the California Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ISSUES AND SUPPORTING DATA SOURCES:	Potential Significant Impact	Less than Significant Impact/MM	Less than Significant Impact	No Impact
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal system where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>7. GREENHOUSE GAS EMISSIONS. Would the project:</b>				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>8. HAZARDS &amp; HAZARDOUS MATERIALS. Would the project:</b>				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. For a project located within an airport land use plan or, where such plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. For a project within the vicinity of private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h. Expose people or structures to a significant risk or loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

ISSUES AND SUPPORTING DATA SOURCES:	Potential Significant Impact	Less than Significant Impact/MM	Less than Significant Impact	No Impact
<b>9. HYDROLOGY &amp; WATER QUALITY. Would the project:</b>				
a. Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or lowering of the local groundwater table level (e.g., the production rate of the pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Substantially alter drainage patterns of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h. Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j. Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ISSUES AND SUPPORTING DATA SOURCES:	Potential Significant Impact	Less than Significant Impact/MM	Less than Significant Impact	No Impact
<b>10. LAND USE &amp; PLANNING. Would the project:</b>				
a. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>11. MINERAL RESOURCES. Would the project:</b>				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>12. NOISE. Would the project result in:</b>				
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. For a project located within an airport land use plan or, where such plan has not been adopted, within two miles of a private or public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ISSUES AND SUPPORTING DATA SOURCES:	Potential Significant Impact	Less than Significant Impact/MM	Less than Significant Impact	No Impact
<b>13. POPULATION &amp; HOUSING. Would the project:</b>				
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>14. PUBLIC SERVICES.</b>				
a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i. Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
v. Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>15. RECREATION.</b>				
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ISSUES AND SUPPORTING DATA SOURCES:	Potential Significant Impact	Less than Significant Impact/MM	Less than Significant Impact	No Impact
<b>16. TRANSPORTATION/TRAFFIC. Would the project:</b>				
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Conflict with an applicable congestion management program, including, but not limited to level of service standard and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Conflict with adopted policies, plan or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>17. UTILITIES &amp; SERVICE SYSTEMS. Would the project:</b>				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

ISSUES AND SUPPORTING DATA SOURCES:	Potential Significant Impact	Less than Significant Impact/MM	Less than Significant Impact	No Impact
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. Comply with federal, state and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### MANDATORY FINDINGS

a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Does the project have impacts that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Does project have environmental effects which will cause substantial adverse cause effects on human beings, either directly or indirectly	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

#### DETERMINATION:

Based upon the evidence in light of the whole record documented in the attached environmental checklist explanation, cited incorporations and attachments, I find that the proposed project:

- a. **COULD NOT** have a significant effect on the environment, and a negative declaration (ND) will be prepared pursuant to CEQA Guidelines Article 6, 15070 through 15075. ☐
- b. **Could have** a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures have been added to the project or revisions in the project have been made by or agreed to by the project proponent. A Mitigated Negative Declaration (MND) will be prepared pursuant to CEQA Guidelines Article 6, 15070 through 15075. ☒

- c. **MAY have** a significant effect on the environment, which has not been analyzed previously. Therefore, an environmental impact report (EIR) is required. ☐
- d. **MAY have** a “potentially significant effect on the environment” or “potentially significant effect unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards and 2) has been addressed by mitigation measures based on the earlier analysis as described on the attached sheets. An Environmental Impact Report is required, but it must analyze only the effects that remain to be addressed. ☐
- e. **Although the** proposed project could have a significant effect on the environment, because potentially effects 1) have been analyzed adequately in an earlier EIR or ND/MND pursuant to applicable legal standards and 2) have been avoided or mitigated pursuant to that earlier EIR/ND/MND, including revisions or mitigation measures that are imposed upon the project, nothing further is required. ☐
- f. **Although the** proposed project could have a significant effect on the environment, because potentially effects 1) have been analyzed adequately in an earlier EIR or ND/MND pursuant to applicable legal standards and 2) have been avoided or mitigated pursuant to that earlier EIR/ND/MND, including revisions or mitigation measures that are imposed upon the project. **However, minor additions and/or clarifications are needed** to make the previous documentation adequate to cover the project which are documented in this Addendum to the earlier CEQA Document (Sec. 15164). ☐

Signature:  \_\_\_\_\_

Planner: John Moreland  
Dept: OC Planning  
Telephone: (714) 667-8806

**NOTE:** All referenced and/or incorporated documents may be reviewed by appointment only, at the County of Orange Public Works Department, 300 N. Flower Street, Santa Ana, California, unless otherwise specified. An appointment can be made by contacting the CEQA Contact Person identified above.

Revised 8/2/2011

## SECTION 5.0 ENVIRONMENTAL ANALYSIS AND EXPLANATION OF CHECKLIST RESPONSES

### 5.1 AESTHETICS

#### 5.1.1 IMPACT ANALYSIS

**a. Would the project have a substantial adverse effect on a scenic vista?**

**No Impact.** No scenic vistas are located within the project vicinity and no related impact would occur (County of Orange 2005).

**b. Would the project substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic building within a state scenic highway?**

**Less Than Significant Impact.** Development of the project site, as described in Section 3.0, Project Description, would alter the existing visual condition of the site. Rancho Las Lomas is an existing privately owned wedding and corporate affair venue. The property currently has 33 existing structures on-site. The project site is located immediately adjacent to Santiago Canyon Road, a designated "Scenic Highway", as identified in *County of Orange General Plan*. The Transportation Element further defines the roadway as a "Viewscape Corridor". The *Foothill-Trabuco Specific Plan* also identifies Santiago Canyon Road as a "Scenic Roadway Corridor". Existing entry gates and monumentation and the proposed bridges are/would be located within 100 feet of the edge of the ultimate road right-of-way; these are necessary for access to and operation of the facility and therefore cannot be relocated. Other structures that are located within 100 feet of the edge of the right-of-way along Santiago Canyon Road cannot be seen from Santiago Canyon Road because views of these structures are blocked by the existing coast live oak woodland canopy located in the Aliso Creek drainage and the landscaped berm that parallels Santiago Canyon Road (refer to Exhibit 5, Site Photograph). Additionally, there are no scenic vistas within or adjacent to the project site. The existing wall and berm prevent people on the Rancho Las Lomas grounds from visually seeing traffic along Santiago Canyon Road. The relative visual isolation of the property grounds and the limited scope of the proposed project would preclude any significant shade or shadow impacts on surrounding uses. The Applicant would also be required to submit a detailed landscape plan for the project area (refer to SCs 5.7-5 through 5.7-7). Impacts related to scenic resources would be less than significant and no mitigation is required.

**c. Would the project substantially degrade the existing visual character or quality of the site and its surroundings?**

**Less Than Significant Impact.** As indicated above, the visual isolation of the property grounds and the limited scope of the proposed project would preclude any significant impacts on surrounding land uses. The project is not anticipated substantially degrade the existing visual character or quality of the site and its surroundings. Impacts related to the visual character and quality of the site would be less than significant and no mitigation is required.

**d. Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?**

**Less Than Significant Impact.** During daylight hours, the amount of glare depends on intensity and direction of sunlight. Glare can create hazards to motorists and nuisances for pedestrians

and other viewers. As identified above, a berm prevents views of the project site from Santiago Canyon Road. Additionally, both the existing and proposed structures are constructed of materials that are not highly subject to glare effects (e.g., no mirrored buildings) and cannot be seen from the road. As such, potential glare from sunlight would not pose a hazard to motorists traveling in the vicinity of the project site, and would not affect surrounding uses.

The project site is subject to nighttime lighting effects from various on-site uses in the area. Existing sources of nighttime lighting include security lighting associated with the property, pathway lighting, street lighting along the local circulation network, and low level lighting along the existing trail, adjacent to Santiago Canyon Road. The proposed project would result in a minor addition of similar sources of nighttime lighting. However, due to the nature of the proposed project and existing surrounding areas, the lighting associated with the proposed project would not significantly impact nighttime views. On-site building-mounted light fixtures would be shielded and/or directed downwards to minimize light spillover (per standard condition [SC] 5.1-1). The project would also adhere to SCs 5.1-2 through 5.1-4 related to light and glare. Impacts would be less than significant and no mitigation is required.

## **5.1.2 MITIGATION PROGRAM**

### **Standard Conditions of Approval**

- SC 5.1-1** Prior to issuance of any building permit, the applicant shall demonstrate that all exterior lighting has been designed and located so that all direct rays are confined to the property in a manner meeting the approval of the Manager, Permit Services.
- SC 5.1-2** Prior to the issuance of any building permit, the applicant shall demonstrate that parking lot roadway, walkway, and security lighting fixtures shall not project above the roofline of any building and are to be shielded and oriented in a manner so that direct light rays are confined onto the subject property, subject to the approval of the Manager, Permit Services.
- SC 5.1-3** Prior to the issuance of any building permit, the applicant shall demonstrate that curbs, gutters, sidewalks, and street lights shall not be allowed unless necessary for safety purposes, subject to the approval of the Manager, Permit Services.
- SC 5.1-4** Prior to the approval of final inspection, applicant shall provide a letter from the electrical engineer, licensed landscape architect, or licensed professional designer, that a field test has been performed after dark and the light rays are confined to the premises. The letter shall be submitted to the Manager, Inspection for review and approval.

Note: High voltage lighting requires a licensed electrical engineer stamp.

- SC 5.1-5** Prior to the issuance of precise grading permits, the applicant shall submit a detailed landscape plan for the project area which shall be approved by the Manager, Permit Services in consultation with the Manager, OC Planning. The plan shall be certified by a licensed landscape architect or a licensed landscape contractor, as required, as taking into account approved preliminary landscape plan (if any), County Standard Plans for landscape areas, adopted plant palette guides, applicable scenic and specific plan requirements, and water conservation measures contained in the County of Orange Landscape Code (Ord. No. 09-010).



## Site Photograph

*Rancho Las Lomas*

Exhibit 5

**Bonterra**  
CONSULTING

(09/21/12 MMD) R:\Projects\Walton\J001\Graphics\MND\Ex5\_sitephoto.pdf



- SC 5.1-6** Prior to the approval of final inspection, applicant shall install said landscaping and irrigation system and shall have a licensed landscape architect or licensed landscape contractor, certify that it was installed in accordance with the approved plan.
- SC 5.1-7** Prior to the approval of final inspection, the applicant shall furnish said installation certification, including an irrigation management report for each landscape irrigation system, and any other implementation report determined applicable, to the Manager, Permit Services.

## **5.2 AGRICULTURE AND FOREST RESOURCES**

- a. Would the project convert Prime farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resource Agency, to non-agricultural use?**

**No Impact.** The proposed project would not convert Prime farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program (FMMP) of the California Resource Agency, to non-agricultural use (FMMP 2010); it would not conflict with existing zoning for agricultural use or with a Williamson Act contract. The project would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use. There is a small existing orchard on the Rancho Las Lomas site; however, the proposed project would not interfere with its operation as project construction would be limited to an existing foundation that is situated away from the orchard. The proposed project is not located in a forest and does not have a land use designation or zoning as a forest. Therefore, the proposed project would not conflict with existing zoning or cause the rezoning of forest land. No impact would occur and no mitigation is required.

- b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act Contract?**

**No Impact.** As stated previously, the proposed project would not conflict with existing zoning for agricultural use or with a Williamson Act Contract; no impacts would occur.

- c. Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?**

**No Impact.** As stated previously, the proposed project would not result in a conversion of farmland to non-agricultural use. No impacts related to the conversion of farmland would occur and no mitigation is required.

- d. Would the project result in the loss of forest land or conversion of forest land to non-forest use.**

**No Impact.** The proposed project is not located in a forest and does not have a land use designation or zoning as a forest. Therefore, the proposed project would not conflict with existing zoning or cause the rezoning of forest land; no impacts would occur.

- e. **Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or forest land to non-forest use?**

**No Impact.** As stated previously, the proposed project would not result in the loss of forest land, nor would it conversion of forest land to non-forest use; no impacts would occur.

### **5.3 AIR QUALITY**

#### **5.3.1 ENVIRONMENTAL SETTING**

The Project site is located in the Orange County portion of the South Coast Air Basin (SoCAB) and, for air quality regulation and permitting, is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). Both the State of California (State) and the U.S. Environmental Protection Agency (USEPA) have established health-based Ambient Air Quality Standards (AAQS) for air pollutants, which are known as “criteria pollutants”. The AAQS are designed to protect the health and welfare of the populace within a reasonable margin of safety. The federal and State AAQS are shown in Table 3.

Regional air quality is defined by whether the area has attained or not attained State and federal air quality standards, as determined by air quality data from various monitoring stations. Areas that are considered in “nonattainment” are required to prepare plans and implement measures that will bring the region into “attainment”. When an area has been reclassified from a nonattainment to an attainment area for a federal standard, the status is identified as “maintenance”, and there must be a plan and measures established that will keep the region in attainment for the following ten years.

For the California Air Resources Board (CARB), an “Unclassified” designation indicates that the air quality data for the area are incomplete and do not support a designation of attainment or nonattainment. Table 4 summarizes the attainment status of the SoCAB for the criteria pollutants.

**TABLE 3  
CALIFORNIA AND NATIONAL AMBIENT AIR QUALITY STANDARDS**

Pollutant	Averaging Time	California Standards	Federal Standards	
			Primary <sup>a</sup>	Secondary <sup>b</sup>
O <sub>3</sub>	1 Hour	0.09 ppm (180 µg/m <sup>3</sup> )	–	–
	8 Hour	0.070 ppm (137 µg/m <sup>3</sup> )	0.075 ppm (147 µg/m <sup>3</sup> )	Same as Primary
PM10	24 Hour	50 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>	Same as Primary
	AAM	20 µg/m <sup>3</sup>	–	Same as Primary
PM2.5	24 Hour	–	35 µg/m <sup>3</sup>	Same as Primary
	AAM	12 µg/m <sup>3</sup>	15.0 µg/m <sup>3</sup>	Same as Primary
CO	1 Hour	20 ppm (23 mg/m <sup>3</sup> )	35 ppm (40 mg/m <sup>3</sup> )	–
	8 Hour	9.0 ppm (10 mg/m <sup>3</sup> )	9 ppm (10 mg/m <sup>3</sup> )	–
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m <sup>3</sup> )	–	–
NO <sub>2</sub>	AAM	0.030 ppm (57 µg/m <sup>3</sup> )	0.053 ppm (100 µg/m <sup>3</sup> )	Same as Primary
	1 Hour	0.18 ppm (339 µg/m <sup>3</sup> )	0.100 ppm (188 µg/m <sup>3</sup> )	–
SO <sub>2</sub>	24 Hour	0.04 ppm (105 µg/m <sup>3</sup> )	–	–
	3 Hour	–	–	0.5 ppm (1,300 µg/m <sup>3</sup> )
	1 Hour	0.25 ppm (655 µg/m <sup>3</sup> )	0.075 ppm (196 µg/m <sup>3</sup> )	–
Lead	30-day Avg.	1.5 µg/m <sup>3</sup>	–	–
	Calendar Quarter	–	1.5 µg/m <sup>3</sup>	Same as Primary
	Rolling 3-month Avg.	–	0.15 µg/m <sup>3</sup>	
Visibility Reducing Particles	8 hour	Extinction coefficient of 0.23 per km – visibility ≥ 10 miles ( 0.07 per km – ≥30 miles for Lake Tahoe)	No Federal Standards	
Sulfates	24 Hour	25 µg/m <sup>3</sup>		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m <sup>3</sup> )		
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m <sup>3</sup> )		
O <sub>3</sub> : ozone; ppm: parts per million; µg/m <sup>3</sup> : micrograms per cubic meter; PM10: large particulate matter; AAM: Annual Arithmetic Mean; PM2.5: fine particulate matter; CO: carbon monoxide; mg/m <sup>3</sup> : milligrams per cubic meter; NO <sub>2</sub> : nitrogen dioxide; SO <sub>2</sub> : sulfur dioxide; km: kilometer; –: No Standard.				
<sup>a</sup> <i>National Primary Standards</i> : The levels of air quality necessary, within an adequate margin of safety, to protect the public health.				
<sup>b</sup> <i>National Secondary Standards</i> : The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.				
Note: More detailed information in the data presented in this table can be found at the CARB website ( <a href="http://www.arb.ca.gov">www.arb.ca.gov</a> ).				
Source: CARB 2012a.				

**TABLE 4**  
**DESIGNATIONS OF CRITERIA POLLUTANTS IN THE SOUTH COAST AIR BASIN**

Pollutant	State	Federal
O <sub>3</sub> (1-hour)	Nonattainment	No Standard
O <sub>3</sub> (8-hour)		Extreme Nonattainment
PM <sub>10</sub>	Nonattainment	Serious Nonattainment
PM <sub>2.5</sub>	Nonattainment	Nonattainment
CO	Attainment	Attainment/Maintenance
NO <sub>2</sub>	Nonattainment	Attainment/Maintenance
SO <sub>2</sub>	Attainment	Attainment
Lead	Attainment/ Nonattainment <sup>a</sup>	Attainment/ Nonattainment <sup>a</sup>
All others	Attainment/Unclassified	No Standards
O <sub>3</sub> : ozone; PM <sub>10</sub> : respirable particulate matter with a diameter of 10 microns or less; PM <sub>2.5</sub> : fine particulate matter with a diameter of 2.5 microns or less; CO: carbon monoxide; NO <sub>2</sub> : nitrogen dioxide; SO <sub>2</sub> : sulfur dioxide. <sup>a</sup> Los Angeles County is classified as nonattainment for lead; the remainder of the SoCAB is in attainment of the State and federal standards. Source: CARB 2012b.		

### 5.3.2 IMPACT ANALYSIS

**a. Would the project conflict with or obstruct implementation of the applicable air quality plan?**

**No Impact.** The *Final 2007 Air Quality Management Plan* (AQMP) was adopted by the SCAQMD on June 1, 2007. The 2007 AQMP is an update to the 2003 AQMP and incorporates new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools. CARB approved the plan when the State Strategy for the State Implementation Plan (SIP) was adopted on September 27, 2007.

On November 28, 2007, CARB submitted a SIP revision to the USEPA for ozone (O<sub>3</sub>), fine particulate matter (PM<sub>2.5</sub>), carbon monoxide (CO), and nitrogen dioxide (NO<sub>2</sub>) in the SoCAB; this revision is identified as the “2007 South Coast SIP”. The 2007 AQMP/2007 South Coast SIP demonstrates attainment of the federal PM<sub>2.5</sub> standard in the SoCAB by 2014 and attainment of the federal 8-hour O<sub>3</sub> standard by 2023. The SIP also includes a request to reclassify the O<sub>3</sub> attainment designation from “severe” to “extreme”. The USEPA approved the redesignation effective June 4, 2010. The extreme designation requires the attainment of the 8-hour O<sub>3</sub> standard in the SoCAB by June 2024. CARB approved PM<sub>2.5</sub> SIP revisions in April 2011 and O<sub>3</sub> SIP revisions in July 2011. The USEPA approved 3 of the 5 PM<sub>2.5</sub> SIP requirements on January 9, 2012, and has approved 47 of the 62 O<sub>3</sub> SIP requirements (USEPA 2012).

The SCAQMD has drafted the 2012 AQMP, which is a regional and multi-agency effort (SCAQMD, CARB, the Southern California Association of Governments [SCAG], and the USEPA). The 2012 AQMP will incorporate the latest scientific and technical information and planning assumptions, including the 2012 Regional Transportation Plan/Sustainable Communities Strategy (RTP SCS); updated emission inventory methodologies for various source categories; and SCAG’s latest growth forecasts. It is expected that the 2012 AQMP will be approved by the SCAQMD Governing Board in November 2012 (SCAQMD 2012).

The main purpose of an AQMP is to bring an area into compliance with the requirements of federal and State air quality standards. For a project to be consistent with the AQMP, the pollutants emitted from the project should not exceed the SCAQMD air quality significance thresholds or cause a significant impact on air quality. However, if feasible mitigation measures are implemented and shown to reduce the impact level from significant to less than significant, the project is deemed consistent with the AQMP.

The proposed project would not directly or indirectly result in population growth. The project would result in short-term construction and long-term operational pollutant emissions well below the CEQA significance emissions thresholds established by SCAQMD (SCAQMD 2011b), as demonstrated below; the project is therefore consistent with the air quality management policies in the current AQMP. No impacts are anticipated and no mitigation is required.

**b. Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?**

**Less than Significant Impact.** The SCAQMD establishes significance thresholds to assess the regional impact of Project-related air pollutant emissions in the SCAQMD. Table 5, SCAQMD Criteria Pollutant Mass Emissions Significance Thresholds, summarizes the SCAQMD's mass emissions thresholds, which are presented for both long-term operational and short-term construction emissions. A project with emission rates below these thresholds is considered to have a less than significant effect on air quality.

**TABLE 5  
SCAQMD CRITERIA POLLUTANT SIGNIFICANT MASS  
EMISSIONS THRESHOLDS (POUNDS PER DAY)**

Criteria Pollutant	Construction	Operation
Volatile Organic Compounds (VOC)	75	55
Oxides of Nitrogen (NOx)	100	55
Carbon Monoxide (CO)	550	550
Oxides of Sulfur (SOx)	150	150
Particulate Matter (PM10)	150	150
Particulate Matter (PM2.5)	55	55
Source: SCAQMD 2011b.		

**Regional Construction Impacts.** The SCAQMD has established methodologies to quantify air emissions associated with construction activities such as air pollutant emissions generated by operation of on-site construction equipment; fugitive dust emissions related to trenching and earthwork activities; and mobile (tailpipe) emissions from construction worker vehicles and haul/delivery truck trips. Emissions would vary from day to day, depending on the level of activity; the specific type of construction activity occurring; and, for fugitive dust, prevailing weather conditions.

A construction-period mass emissions inventory was compiled based on an estimate of construction equipment as well as scheduling and project phasing assumptions. More specifically, the mass emissions analysis takes into account the following:

- Combustion emissions from operating on-site construction equipment;
- Fugitive dust emissions from demolition, site preparation, and grading phases; and

- Mobile-source combustion emissions and fugitive dust from worker commute and truck travel.

Emissions were calculated using the California Emissions Estimator Model (CalEEMod) 2011 emissions inventory model (SCAQMD 2011a). CalEEMod is a computer program accepted by the SCAQMD that can be used to estimate emissions associated with land development projects in California. CalEEMod has separate databases for counties and air districts; the Orange County database was used for the proposed project. Dust control by watering was assumed, consistent with the requirements of SCAQMD Rule 403 (SC 5.3-1). The quantity, duration, and the intensity of construction activity affect the amount of construction emissions and related pollutant concentrations occurring at any one time. As such, the emission forecasts provided below reflect a specific set of conservative assumptions based on the expected construction scenario where a relatively large amount of construction is occurring in a relatively intensive manner. Because of this conservative assumption, actual emissions are likely to be less than those forecasted. If construction is delayed or occurs over a longer time period, emissions could be reduced because of (1) a more modern and cleaner-burning construction equipment fleet mix and/or (2) a less intensive buildout schedule (i.e., fewer daily emissions occurring over a longer time interval). A conservative estimate of the proposed Project's regional mass emissions during construction is presented in Table 6. As shown, all criteria pollutant emissions would remain below their respective thresholds. Thus, impacts would be less than significant.

**TABLE 6**  
**ESTIMATED MAXIMUM DAILY CONSTRUCTION EMISSIONS<sup>a</sup>**  
**(LBS/DAY)**

	VOC	NOx	CO	SOx	PM10	PM2.5
Maximum daily emissions in 2014	1	8	7	<0.5	1	1
Maximum daily emissions in 2015	2	12	11	<0.5	1	1
Maximum daily emissions in 2016	1	7	6	<0.5	1	<0.5
<b>SCAQMD Daily Thresholds<sup>b</sup></b>	<b>75</b>	<b>100</b>	<b>550</b>	<b>150</b>	<b>150</b>	<b>55</b>
<b>Exceeds SCAQMD Thresholds?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
VOC: volatile organic compound(s); NOx: nitrogen oxides; CO: carbon monoxide; SOx: sulfur oxides; PM10: respirable particulate matter with a diameter of 10 microns or less; PM2.5: fine particulate matter with a diameter of 2.5 microns or less. Sources: <sup>a</sup> Appendix E <sup>b</sup> SCAQMD 2011b.						

**Localized Construction Impacts.** The localized effects from the on-site portion of daily emissions were evaluated at sensitive receptor locations potentially impacted by the Project according to the SCAQMD's localized significance threshold (LST) methodology, which utilizes on-site mass emissions rate look up tables and Project specific modeling, where appropriate. LSTs are only applicable to the following criteria pollutants: nitrogen oxides (NO<sub>x</sub>), CO, PM10, and PM2.5. LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or State ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area and distance to the nearest sensitive receptor. For PM10 and PM2.5, LSTs were derived based on requirements in SCAQMD Rule 403, Fugitive Dust. The mass rate look-up tables were developed for each source receptor area and can be used to determine whether or not a project may generate significant adverse localized air quality impacts. SCAQMD provides LST mass rate look-up tables for projects that are less than or equal to five acres. For the proposed project, it was assumed that the construction area would be less than one acre, so the one-acre (most conservative) thresholds were used.

When quantifying mass emissions for localized analysis, only emissions that occur on site are considered. Consistent with the SCAQMD LST methodology guidelines, emissions related to off-site delivery/haul truck activity and employee trips are not considered in the evaluation of localized impacts. As shown in Table 7 below, localized emissions for all criteria pollutants would remain below their respective SCAQMD LST significance thresholds for all pollutants. As such, impacts would be less than significant.

**TABLE 7  
MAXIMUM LOCALIZED CONSTRUCTION POLLUTANT EMISSIONS<sup>a</sup>  
(LBS/DAY)**

	NOx	CO	PM10	PM2.5
Maximum daily emissions in 2014	8.3	6.6	0.6	0.6
Maximum daily emissions in 2015	12.5	10.5	0.9	0.9
Maximum daily emissions in 2016	6.9	6.5	0.5	0.5
<b>SCAQMD LSTs<sup>b</sup></b>	<b>91</b>	<b>696</b>	<b>4</b>	<b>3</b>
<b>Exceeds SCAQMD Thresholds?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
lbs/day: pounds per day; NOx: nitrogen oxides; CO: carbon monoxide; PM10: respirable particulate matter with a diameter of 10 microns or less; PM2.5: fine particulate matter with a diameter of 2.5 microns or less. Sources: <sup>a</sup> Appendix E <sup>b</sup> SCAQMD 2009 (Thresholds for Source Receptor Area 19, Saddleback Valley).				

The greatest potential for toxic air contaminant emissions during construction would be related to diesel particulate emissions associated with heavy equipment operations during site grading activities. The SCAQMD does not consider diesel-related cancer risks from construction equipment to be an issue due to the short-term nature of construction activities. Construction activities associated with the proposed project would be sporadic, transitory, and short term in nature (i.e., no more than three years). The assessment of cancer risk is typically based on a 70-year exposure period. Because exposure to diesel exhaust would be well below the 70-year exposure period, construction of the proposed project is not anticipated to result in an elevated cancer risk to exposed persons due to the short-term nature of construction. As such, project-related toxic emissions impacts during construction would not be significant.

**Regional Operational Impacts.** The SCAQMD has also established significance thresholds to evaluate potential impacts associated with long-term project operations. Long-term air pollutant emissions come from mobile sources, stationary sources, and area sources. Mobile-source emissions are associated with vehicular travel and are a function of the number of vehicle miles traveled (VMT). Examples of major stationary sources are electric power plants, phosphate processing plants, pulp and paper mills, and municipal waste combustors. Minor sources include most asphalt plants, concrete batch plants, and bulk gasoline plants. Area source emissions are those air pollutants emitted from many individually small activities such as gasoline service stations, small paint shops, and consumer use of solvents. Area sources also include open burning associated with agriculture, forest management, and land clearing activities.

With respect to the proposed operation of the project, there would be no trip generation (i.e., new vehicle trips attributed to the proposed project) and, as such, no project-related mobile-source emissions. The proposed development would not generate stationary-source emissions or area-source emissions. Therefore, there would be no project-related operational mass emissions.

**Local Operational Impacts.** In an urban setting, vehicle exhaust is the primary source of CO. Consequently, the highest CO concentrations generally are found close to congested intersections. As discussed above, the proposed project would not result in new trip generation, nor would the project cause changes in peak hour trips. Thus, local intersections would not be affected by the proposed project, and there would be no impacts resulting from CO hot spots.

With regard to local criteria pollutant emissions associated with the proposed Project, as discussed above, no new on-site stationary sources are proposed. As such, localized operational impacts from criteria pollutants would be less than significant and no mitigation is required.

The SCAQMD recommends that health risk assessments be conducted for substantial sources of diesel particulate emissions (e.g., truck stops and warehouse distribution facilities) and has provided guidance for analyzing mobile source diesel emissions. In addition, typical sources of acutely and chronically hazardous toxic air contaminants (TACs) include industrial manufacturing processes, automotive repair facilities, and dry cleaning facilities. Since the proposed project would not contain such uses, the proposed project does not warrant a health risk assessment. Potential project-generated air toxic impacts on surrounding land uses would be less than significant. No mitigation measures are necessary.

- c. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?**

**Less Than Significant Impact.** The SCAQMD's approach for assessing cumulative impacts is based on the AQMP forecasts of attainment of ambient air quality standards in accordance with the requirements of the Federal and State Clean Air Acts. As discussed earlier in Response 5.3a, the proposed project would be consistent with the AQMP, which is intended to bring the SoCAB into attainment for all criteria pollutants.<sup>1</sup> In addition, the mass regional emissions calculated for the proposed project (Table 6) are lower than the applicable SCAQMD daily significance thresholds that are designed to assist the region in attaining the applicable State and national ambient air quality standards. With regard to cumulative local impacts due to concurrent construction activities of related projects, there are no projects currently active or proposed within the local vicinity. As such, cumulative impacts would be less than significant. No mitigation is required.

- d. Would the project expose sensitive population groups to pollutants in excess of acceptable levels?**

**Less Than Significant Impact.** As described in the response to question 5.3b, the proposed project would not result in any substantial CO hotspot or TAC air pollution impacts, and emissions would be less than the conservative LST emissions thresholds. Therefore, the proposed project would not expose any nearby sensitive receptors to substantial pollutant concentrations. As such, the proposed project would have a less than significant impact. No mitigation would be required.

<sup>1</sup> Section 15064(h)(3) of the CEQA Guidelines states "A lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program which provides specific requirements that will avoid or substantially lessen the cumulative problem (e.g. water quality control plan, air quality plan, integrated waste management plan) within the geographic area in which the project is located. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency".

**e. Would the project create objectionable odors affecting a substantial number of people?**

**No Impact.** According to the SCAQMD's *CEQA Air Quality Handbook* (SCAQMD 1993), land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed project does not include any uses identified by the SCAQMD as being associated with odors and therefore would not produce objectionable odors. As such, the proposed project would have no significant impact in regards to objectionable odors.

### **5.3.3 MITIGATION PROGRAM**

#### **Standard Conditions of Approval**

**SC 5.3-1** Prior to issuance of a precise Grading Permit for the bridges, the property owner/developer shall provide written evidence of compliance to the Planning Director or Planning Services Manager that all construction activities shall comply with SCAQMD Rule 403, which shall assist in reducing short-term air pollutant emissions. SCAQMD Rule 403 (Tables 1, 2, and 3 of Rule 403) requires that fugitive dust be controlled with the best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. This requirement shall be included as notes on the contractor specifications.

### **5.4 BIOLOGICAL RESOURCES**

This section summarizes existing conditions and natural resources within the project site and adjacent to the project site; the anticipated types of impacts to these resources resulting from the proposed project; and guidelines for mitigation of direct impacts to biological resources. A Biological Constraints Survey for the proposed project was performed by BonTerra Consulting on June 4, 2009 (refer to Appendix L). A Jurisdictional Delineation for the proposed project was performed by BonTerra Consulting on October 8, 2008 (refer to Appendix F). In addition to the Jurisdictional Delineation, an Oak Management and Preservation Plan (refer to Appendix G) was prepared by BonTerra Consulting on March 31, 2009. These reports were subsequently updated in August 2012 to reflect the currently proposed project. A Large Mammal Movement Plan and a Riparian and Aquatic Species Habitat Evaluation were prepared for Rancho Las Lomas by a qualified wildlife biologist on June 21, 2004 (refer to Appendix H). The results of these reports are hereby incorporated into this biological resources evaluation.

#### **5.4.1 IMPACT ANALYSIS**

**a. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Services?**

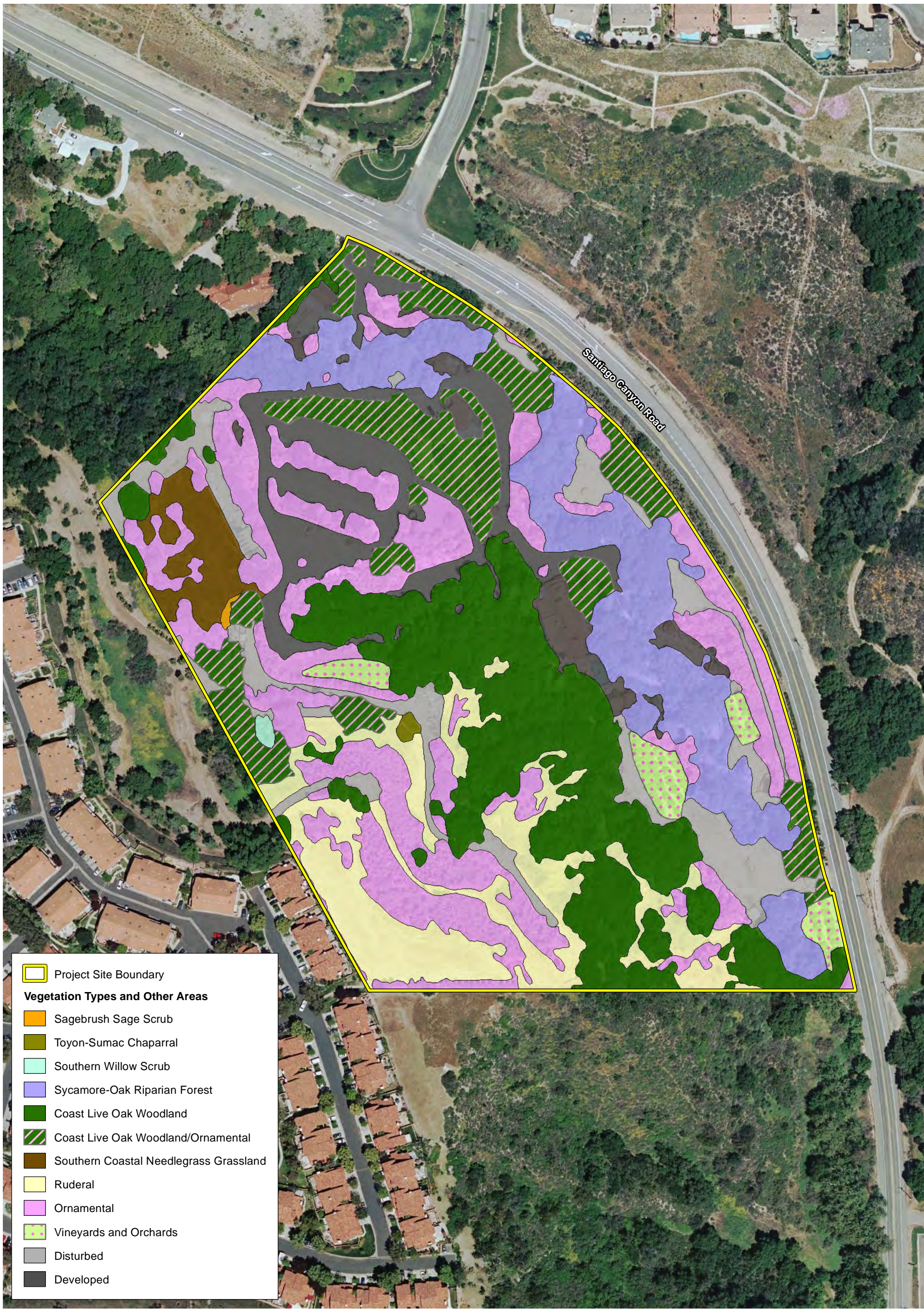
**Less Than Significant Impact with Mitigation.** The natural terrain of the site is characterized by gentle to moderately sloping terraces adjoining the canyon bottom of Aliso Creek in the eastern one-third of the project site, and steeper, more rugged hillside ascending westward into the remaining two-thirds of the site. Maximum topographic relief is approximately 231 feet, ranging from a high of 1,346 feet above msl near the southwestern corner of the property, to a low of 1,115 feet above msl in the southeastern corner.

Vegetation on the site consists of sagebrush sage scrub, toyon-sumac chaparral, southern willow scrub, sycamore-oak riparian forest, coast live oak woodland, coast live oak woodland/ornamental, southern coastal needlegrass grassland, ruderal, ornamental, and vineyards and orchards. Mapped vegetation types and other areas are shown on Exhibit 6. The site is primarily a mix of native coast live oak woodlands and ornamental vegetation. Oak woodlands are dominated by coast live oak (*Quercus agrifolia*), with an understory of periwinkle (*Vinca major*) and cape honeysuckle (*Tecoma capensis*). Aliso Creek passes through the property and supports coast live oak and western sycamore (*Platanus racemosa*) as co-dominant species along with scattered willows (*Salix* sp.) and non-native species such as deodar cedar (*Cedrus deodara*), pines (*Pinus* spp.), palm trees (multiple unidentified species), and pampas grass (*Cortaderia selloana*). Understory species in the riparian areas consist largely of periwinkle and cape honeysuckle with less common castor bean (*Ricinus communis*), cheeseweed (*Malva parviflora*), and non-native grasses. Other on-site vegetation consists of ornamental plantings dominated by deodar cedars, pines, palm trees, jacaranda (*Jacaranda mimosifolia*), oleander (*Nerium oleander*), and Peruvian pepper trees (*Schinus molle*), as well as orange tree orchards. Small patches of native vegetation—sagebrush sage scrub, toyon-sumac chaparral, southern willow scrub, and southern coastal needlegrass grassland—also occur on the project site. These native vegetation types are dominated by California sagebrush (*Artemisia californica*), toyon (*Heteromeles arbutifolia*) and sapling coast live oaks, red willow (*Salix laevigata*), and needlegrass (*Stipa* [*Nassella*] sp.), respectively. The ruderal vegetation type contains non-native, weedy species including wild oat (*Avena* sp.), black mustard (*Brassica nigra*), ripgut grass (*Bromus diandrus*), foxtail chess (*Bromus madritensis* ssp. *rubens*), and Italian thistle (*Carduus pycnocephalus*).

### **Special Status Plant Species**

Several special status plant species have been reported in the vicinity of the project site (CNPS 2009, 2012; CDFG 2009a, 2012). Three of these species are federally and/or State-listed Threatened or Endangered species: thread-leaved brodiaea (*Brodiaea filifolia*), slender-horned spineflower (*Dodecahema leptoceras*), and Santa Monica dudleya (*Dudleya cymosa* ssp. *ovatifolia*). Slender-horned spineflower and Santa Monica dudleya are not expected to occur on the project site due to lack of suitable habitat. Thread-leaved brodiaea has been reported from a remnant patch of native grassland between Aliso and Serrano creeks approximately 1.5 miles southwest of the project site (CDFG 2009a). A limited amount of suitable habitat for thread-leaved brodiaea is present on the project site in the southern coastal needlegrass grassland. Several CNPS List 1B and List 2 species have been reported from the vicinity of the project site (CNPS 2009). A limited amount of suitable habitat for the intermediate mariposa lily (*Calochortus weedii* var. *intermedius*) and many-stemmed dudleya (*Dudleya multicaulis*) is present on the project site in the southern coastal needlegrass grassland.

A total of 0.07 acre of southern coastal needlegrass grassland is within fuel modification Zone C, which requires 50 percent thinning of native shrubs that are considered a fire hazard. Fuel modification does not require the removal of herbaceous growth, including native grasses and herbs. Therefore, the proposed project would not be expected to remove the southern coastal needlegrass grassland. However, this area may be disturbed by periodic mowing or weed abatement, which may disturb the grassland and impact special status plant species. Impacts on thread-leaved brodiaea, if present, would be significant; impacts on intermediate mariposa lily and many-stemmed dudleya, if present, would be potentially significant, depending on the size of the impacted population. If mowing of southern coastal needlegrass grassland is performed as part of fuel modification activities, mitigation would be required to reduce the impact to a less than significant level (refer to MM 5.4-1).



Biological Resources

Rancho Las Lomas

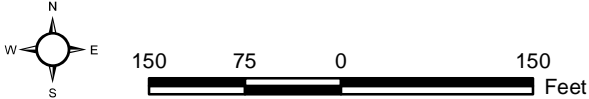


Exhibit 6





## **Special Status Wildlife Species**

The project site was surveyed on October 20, 2003, and on May 22, 2004, by a qualified wildlife biologist to determine if the habitat on site was suitable for Threatened, Endangered, or other imperiled wildlife species. Habitat suitability was evaluated for least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), arroyo toad (*Anaxyrus [Bufo] californicus*), Pacific [western] pond turtle (*Actinemys [Emys] marmorata*), and Coast Range newt (*Taricha torosa torosa*). This project site is within the range of these species and they could be present if adequate habitat were available. Whether adequate and appropriate habitat for each of the identified species is discussed in the following paragraphs.

### ***Least Bell's Vireo***

There are adequate overstory trees (i.e. trees with substantial canopy) on the project site, but there are virtually no understory shrubs for least Bell's vireo nesting. The few shrubs and small trees that do provide some cover are mostly non-native plants and have a cover of less than five percent. The understory is solid periwinkle. Therefore, due to the lack of suitable habitat for the aforementioned species within the proposed impact area, there would be no impact on this species.

### ***Southwestern Willow Flycatcher***

The dense foliage suitable for southwestern willow flycatcher nesting does not exist on the project site, especially in the 0- to 30-foot canopy zone. Southwestern willow flycatcher studies performed in San Bernardino, Riverside, and Orange Counties indicate that a high degree of foliage density is necessary for nesting within the 30-foot and over canopy zones (Loe 2004b). The branch structure and density in the 30–70 foot zone on the project site is minimal and does not have the level of density needed to support nesting compared to the density identified by these aforementioned studies (Loe 2004b). Clumps of dense shrubs do not exist on site, and there is no surface flow or moist soil during the breeding season except for periodic runoff from nearby irrigation. Therefore, due to the lack of suitable habitat for the aforementioned species within the proposed impact area, there will be no impact on this species.

### ***Arroyo Toad***

Arroyo toads require sandy locations for burrowing purposes. The only sandy conditions on the project site are in the bottom of the stream between boulders and cobbles; there are no sandy banks or terraces suitable for burrowing. The banks are steep with firm, non-sandy soil and are covered with non-native periwinkle (90–100 percent coverage). Upland areas consist of either dense periwinkle or are developed with little potential habitat. There is no reliable flow in the stream during the breeding season and no pools suitable for breeding during the breeding season (Loe 2004b). Therefore, due to the lack of suitable habitat for the aforementioned species in the proposed impact area, there will be no impact on this species.

### ***Pacific [Western] Pond Turtle***

Pacific [western] pond turtles require permanent water and pools in order to survive. There is no permanent water or pools on the project site. There are no banks suitable for resting or basking due to the steep-sided channel structure (Loe 2004b). Therefore, due to the lack of suitable habitat for the aforementioned species in the proposed impact area, there will be no impact on this species.

### **Coast Range Newt**

Surface flows are too intermittent in Aliso Creek to support Coast Range newt breeding (Loe 2004b); additionally, because of narrow, incised channel conditions and a steep channel gradient, there is a lack of adequate pooling for breeding purposes. The close proximity of development and the dense coverage of periwinkle (non-native plant species) on the near-vertical channel side slopes further reduces the potential for occupancy by newts. Therefore, due to the lack of suitable habitat for the aforementioned species within the proposed impact area, there will be no impact on this species.

### **Nesting Birds**

Vegetation on the project site could support nesting birds. The Migratory Bird Treaty Act (MBTA) protects the taking of migratory birds and their nests and eggs. Section 8.3.7 of the Natural Communities Conservation Planning Program/Habitat Conservation Plan (NCCP/HCP) Implementation Agreement (IA) for the Central/Coastal Subregion authorizes participating landowners to take species covered by the permit; any such take will not be in violation of the MBTA of 1918, as amended (16 *United States Code* [USC] §§703–712). Raptor species (i.e., birds of prey) have potential to nest in the woodland vegetation types on the project site. Active raptor nests are protected by Sections 3503, 3503.5, and 3513 of the *California Fish and Game Code*. The loss of any active nest not covered by the NCCP/HCP would be considered significant. Mitigation is required to reduce the impact to a less than significant level (refer to MM 5.4-2).

- b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. fish and Wildlife Services?**

***Less Than Significant Impact with Mitigation.*** Special status vegetation types are considered to be “depleted” habitats by the CDFG (CDFG 2009a, 2012) or local jurisdictions. These vegetation types may be protected by ordinances, codes, regulations, or planning policies. Biological Resources are shown in Exhibit 6.

### **Coastal Sage Scrub**

Coastal sage scrub vegetation types, including sagebrush sage scrub, are declining throughout Southern California. They support many special status plant and wildlife species, and the ecological function in Southern California’s remaining coastal sage scrub is threatened by habitat fragmentation, invasive non-native species, livestock grazing, off-highway vehicles, altered fire regime, and perhaps air pollution. A very small monotypic patch of sagebrush sage scrub occurs in the northwestern portion of the project site; this patch is isolated from larger areas of sage scrub. This special status vegetation type will not be impacted by the proposed project.

### **Riparian**

Riparian vegetation occurs along perennial or intermittent drainages that are typically subject to seasonal flooding. Most natural riparian vegetation in Southern California has been lost or degraded by land use conversions to agricultural, urban, and recreational uses; channelization for flood control; sand and gravel mining; groundwater pumping; water impoundments; and various other changes. It is estimated that as much as 95 to 97 percent of historic riparian habitats in Southern California have been lost (Faber et al. 1989). In general, riparian vegetation

can provide important biological functions for an ecosystem such as cover and water sources for wildlife; filtration of runoff water and groundwater recharge; and flood control and sediment stabilization. Riparian vegetation on the project site occurs along Aliso Creek and is comprised of sycamore-oak riparian forest with some coast live oak/ornamental. A small patch of southern willow scrub occurs on the slope in the western portion of the project site, although this patch is not associated with Aliso Creek. A total of 2.64 acres of sycamore-oak riparian forest is within a fuel modification zone. Although the understory may be removed in fuel modification areas, none of the native trees will be removed. Native understory species approved by the Orange County Fire Authority (OCFA) will be planted in fuel modification areas in Aliso Creek per the revegetation plan. Therefore, impacts on riparian habitat are considered less than significant.

Riparian habitat is often associated with wetlands and “Waters of the U.S.,” which are protected under Sections 401 and 404 of the Clean Water Act (CWA) and “Waters of the State,” which are protected under Section 1600 of the *California Fish and Game Code*. Impacts on waters under the jurisdiction of the U.S. Army Corps of Engineers (USACE), the Regional Water Quality Control Board (RWQCB), and/or the CDFG are analyzed in discussion 5.4(c) below.

### **Oak Woodland**

Oak woodlands are declining throughout California due to residential, commercial, and industrial development. These woodlands are an important resource in California that provide wildlife habitat in addition to aesthetic, cultural, economic, and environmental value. The *Foothill/Trabuco Specific Plan* guidelines include a series of resource overlays to “preserve and minimize impacts on significant regional resources”, including oak woodlands (County of Orange 1991). These guidelines state that a site-specific oak woodland analysis is required for parcels containing oak woodlands. A total of 2.64 acres of sycamore-oak riparian forest, 1.97 acres of coast live oak woodland, and 1.69 acres of coast live oak woodland/ornamental occur within fuel modification zones for the proposed project. The OCFA has agreed that none of the trees on the project site need to be removed for fuel modification purposes; therefore, the fuel modification would only impact the understory of these vegetation types. Therefore, impacts on oak woodland habitats are considered less than significant.

The *Foothill/Trabuco Specific Plan* also protects individual oak trees exceeding five inches in diameter, as measured at 4.5 feet above the existing grade. Impacts on individual oak trees are analyzed in discussion 5.4(e) below.

### **Native Grassland**

Native grasslands have declined by approximately 99 percent in their historic range in California (Noss and Peters 1995). In the mid-nineteenth century, heavy grazing by cattle and sheep caused native perennials to be replaced by fast-growing annual grasses, which are able to take advantage of spring rains and produce seeds before the dry heat of summer. The native perennial grasses, which are more palatable to livestock than annuals, were damaged by grazing and trampling. Native grasslands have also been lost to development and conversion to agriculture. A small area of southern coastal needlegrass grassland occurs on a slope in the northwestern portion of the project site. A total of 0.07 acre of southern coastal needlegrass grassland is within fuel modification Zone C, which requires 50 percent thinning of native shrubs that are considered a fire hazard. Fuel modification does not require the removal of herbaceous growth, including native grasses and herbs. Therefore, the proposed project would not be expected to remove the southern coastal needlegrass grassland. However, this area may be disturbed by periodic mowing or weed abatement. If mowing of southern coastal needlegrass grassland is performed as part of fuel modification activities, mitigation would be required to reduce the impact to a less than significant level (refer to MM 5.4-1).

## **Indirect Impacts**

The proposed project includes planting native riparian plant species along Aliso Creek as retroactive mitigation for the loss of riparian resources resulting from the previously conducted vegetation removal. This would be considered a beneficial impact of the project. Additionally, ongoing operations may include supplemental planting of native and complimentary ornamental plants in project landscape areas. In order to ensure that proposed planting does not include ornamental species that are known to be invasive (e.g., Japanese honeysuckle, fan palm, and periwinkle, among others) that could escape into natural areas and degrade the native habitats downstream, mitigation is recommended (refer to MM 5.4-3). Any existing invasive exotic plant species shall be removed from within Aliso Creek.

- c. Would the project have a substantial adverse effect on Federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

***Less Than Significant Impact with Mitigation.*** A Jurisdictional Delineation was performed for the proposed project area on April 23, 2009. This report was subsequently updated in August 2012 and is attached as Appendix F.

## **Regulatory Setting**

Drainages, which may include wetlands and “Waters of the U.S.”, are protected under Section 404 of the Clean Water Act (CWA) and are under the jurisdiction of the USACE. “Waters of the U.S.” include navigable coastal and inland waters, lakes, rivers, streams and their tributaries; interstate waters and their tributaries; wetlands adjacent to such waters; intermittent streams; and other waters that could affect interstate commerce. A CWA Section 401 Water Quality Certification from the RWQCB is required before the USACE will issue a Section 404 permit. In addition, if drainages on the project site meet the criteria established by Section 1600 of the *California Fish and Game Code*, the CDFG may require a Streambed Alteration Agreement prior to any modification of the bed, bank, or channel of streambeds in the survey area. The *Foothill/Trabuco Specific Plan* guidelines include a series of resource overlays to “preserve and minimize impacts on significant regional resources”, including streambeds (County of Orange 1991). These guidelines state that a streambed analysis is required for parcels containing streambeds.

The following is a general summary of the various permits, agreements, and certifications required prior to initiation of project activities that would involve impacts to areas under the jurisdiction of the USACE, the RWQCB, or the CDFG (refer to Appendix F, Jurisdictional Delineation). A summary of the regulatory permit requirements delineated within the body of the Jurisdictional Delineation is as follows:

- A USACE Section 404 Permit;
- An RWQCB Section 401 Water Quality Certification; and
- A CDFG Section 1602 Streambed Alteration Agreement.

## ***U.S. Army Corps of Engineers Section 404 Permit***

There are two primary permits that the USACE routinely issues. These include a “Nationwide Permit” (NWP) and an “Individual Permit” (IP). The NWP is a type of general permit that authorizes certain specified activities nationwide. These permits are valid only if the conditions applicable to the permits are met. For some NWPs, there is a maximum impact to “Waters of

the U.S.” allowable under that NWP; otherwise, impacts must be authorized under an IP. An IP is a permit that is issued following an individual evaluation and a determination that the proposed activity is not contrary to the public interest. Standard permits and letters of permission are types of individual permits. The specific permit that is required depends on the project description and extent of jurisdictional impacts.

Please note that if the USACE determines that the drainages are jurisdictional and would be impacted by project implementation, the Applicant will be required to obtain a CWA Section 401 Water Quality Certification from the RWQCB before the USACE will issue the Section 404 permit. That is, the USACE may issue a “Denial Without Prejudice” as part of the issuance of the Section 404 permit that makes the permit valid once the Section 401 Water Quality Certification is issued. If the USACE determines that the impacted drainages are non-jurisdictional, the Applicant will be required to obtain RWQCB authorization under the provisions of a Report of Wastewater Discharge.

Please also note that the USACE has prepared Draft Guidelines on Identifying Waters Protected by the Clean Water Act (Act) to implement the U.S. Supreme Court’s decisions concerning the extent of waters covered by the Act (*Solid Waste Agency of Northern Cook County v. USACE* [SWANCC] and *Rapanos v. United States* [Rapanos]). The review period for the draft guidelines ended in July 2011. The Environmental Protection Agency and the USACE will now consider comments received on the draft guidelines, make revisions where appropriate, finalize and undertake rulemaking consistent with the Administrative Procedure Act. The result will be a “nonbinding guidance” for the identification of resources under the jurisdiction of the USACE. The final guidance will not affect jurisdictional delineations that have already received approval from the USACE.

### ***Regional Water Quality Control Board***

The issuance of the USACE Section 404 permit would be contingent upon the approval of a Section 401 Water Quality Certification from the San Diego RWQCB. Also, the RWQCB requires certification of the project’s CEQA documentation before it will approve the Section 401 Water Quality Certification or WDR. The RWQCB, as a responsible agency, will use the project’s CEQA document to satisfy its own CEQA compliance requirements. Upon acceptance of a complete permit application, the RWQCB has between 60 days and 1 year to make a decision regarding the permit request.

### ***California Department of Fish and Game***

The CDFG regulates all work (including initial construction and ongoing operation and maintenance) that may substantially divert or obstruct the natural flow of or substantially change or use any material from the bed, channel, or bank of any river, stream, or lake through its Streambed Alteration Program. An Applicant must enter into an agreement with the CDFG to ensure no net loss of wetland values and acreages.

### **Jurisdictional Impacts**

#### ***U.S. Army Corps of Engineers Determination***

A total of approximately 0.529 acre under the jurisdiction of the USACE occurs within the property site, this includes 0.034 acre of USACE jurisdictional wetlands and 0.495 acre of USACE jurisdictional non-wetland “Waters of the U.S.”, as described below.

**Wetlands Determination:** As described in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE 2008) and the *1987 Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) an area must exhibit all three wetland parameters in order to be considered a jurisdictional wetland. A portion of the project site exhibited indicators of wetland hydrology, hydrophytic vegetation, and hydric soils. Based on the field observations and data collection, approximately 0.034 acre of wetlands occurs on the project site. Based on the most current project design, no wetland “Waters of the U.S.” would be impacted by the proposed project.

**“Waters of the U.S.” (Non-Wetland) Determination:** Aliso Creek exhibits evidence of hydrology sufficient to document that the ordinary high water mark (OHWM) meets the criteria for USACE jurisdictional waters. Based on field observations and data collection, a total of approximately 0.495 acre of USACE jurisdictional non-wetland “Waters of the U.S.”, of which 0.035 acre is open water, occurs on the project site. Based on the most current project design, a total of approximately 0.074 acre of non-wetland “Waters of the U.S.” will be impacted by the proposed project (refer to Table 8). This includes less than 0.001 acre due to permanent structural impacts, 0.009 acre due to impacts from shade of proposed bridges, and 0.065 acre due to removal of existing bridges and the road fill. Impacts on “Waters of the U.S.” are considered significant. Mitigation would be required to reduce the impact to a less than significant level (refer to MM 5.4-4).

**TABLE 8  
IMPACTS TO USACE JURISDICTIONAL WATERS**

“Waters of the U.S.”	Permanent Impact (Acre)		Temporary Impact (Acre) <sup>a</sup>	Total Impact (Acre)
	Structural	Shade		
Bridge 1	–	0.004	0.008	0.012
Bridge 2	0.000 <sup>b</sup>	0.001	0.014	0.015
Foot Bridge A	–	0.001	0.004	0.005
Foot Bridge B	–	0.002	0.000 <sup>d</sup>	0.002
Concrete Wall Footing	0.000 <sup>c</sup>	0.001	0.000 <sup>e</sup>	0.001
Cement	–	–	0.039	0.039
<b>Total</b>	<b>0.000</b>	<b>0.009</b>	<b>0.065</b>	<b>0.074</b>
<sup>a</sup> Temporary impacts for bridges consist of removal of existing bridges <sup>b</sup> Structural impact is 0.0002 acre <sup>c</sup> Structural impact is 0.0006 acre <sup>d</sup> Structural impact is 0.0003 acre <sup>e</sup> Structural impact is 0.0006 acre Source: BonTerra Consulting 2012c.				

### **California Regional Water Quality Control Board Determination**

The RWQCB’s jurisdictional boundaries are the same as those determined to be USACE “Waters of the U.S.” for drainages on the project site. However, the RWQCB takes jurisdiction over both connected and isolated waters. There were no isolated waters on the project site; therefore, a total of approximately 0.529 acre under the jurisdiction of the RWQCB occurs on the project site. As noted above, the jurisdictional limits were defined as the OHWM in the creek. Project implementation would result in 0.074 acre of total impacts (0.009 acre for shade and 0.065 acre for temporary impacts) on RWQCB jurisdiction. Mitigation would be required to reduce the impact to a less than significant level (refer to MM 5.4-4).

During construction, runoff carrying excessive silt or petroleum residues from construction equipment could potentially impact water quality and, in turn, affect plant and wildlife species using the habitats downstream of the proposed project. Impacts on drainage would be considered potentially significant. Mitigation would be required to reduce the impact to a less than significant level (refer to MM 5.4-5).

### **California Department of Fish and Game**

The CDFG jurisdiction for the proposed project was generally defined by the outer edge of adjacent riparian vegetation. In areas lacking adjacent vegetation, CDFG jurisdiction was defined by the top of the creek bank. Based on field observations and data collection, approximately 2.479 acres of CDFG jurisdiction occurs on the project site. Based on the most current project design, a total of approximately 0.109 acre of this 2.479-acre total will be impacted by the proposed project (refer to Table 9). This includes less than 0.001 acre due to permanent structural impacts; 0.029 acre due to impact from shade of proposed bridges; and 0.080 acre due to removal of existing bridges and the road fill. Impacts on waters under the jurisdiction of the CDFG are considered significant. Mitigation would be required to reduce the impact to a less than significant level (refer to MM 5.4-4).

**TABLE 9  
IMPACTS TO CDFG JURISDICTIONAL WATERS**

CDFG Jurisdiction	Permanent Impact (Acre)		Temporary Impact (Acre) <sup>a</sup>	Total Impact (Acre)
	Structural	Shade		
Bridge 1	0.000	0.010	0.024	0.034
Bridge 2	0.000	0.008	0.012	0.020
Foot Bridge A	0.000	0.005	0.005	0.010
Foot Bridge B	0.000 <sup>b</sup>	0.006	0.000	0.006
Concrete Wall Footing	0.000 <sup>c</sup>	0.000	0.000	0.000
Cement	0.000	0.000	0.039	0.039
<b>Total</b>	<b>0.000</b>	<b>0.029</b>	<b>0.080</b>	<b>0.109</b>
<sup>a</sup> Temporary impacts for bridges consist of removal of existing bridges. <sup>b</sup> Structural impact is 0.0003 acre <sup>c</sup> Structural impact is 0.0006 acre Source: BonTerra Consulting 2012c.				

- d. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?**

**Less than Significant Impact.** The *Foothill/Trabuco Specific Plan* guidelines include a series of resource overlays to “preserve and minimize impacts on significant regional resources”, including wildlife corridors. These guidelines state that a site-specific wildlife corridor analysis is required. A Large Mammal Movement Evaluation was prepared on June 21, 2004 by a qualified wildlife biologist (refer to Appendix H). Large mammal movement in the Upper Aliso Canyon Watershed north of (or upstream of) Cook’s Corner and Live Oak Canyon Road has been severely impacted by the construction and operation roads and development over the last decade. Existing residents and structures that occur throughout Aliso Creek from its headwaters to Cook’s Corner have encroached on the stream for many years. In the past, larger mammals were able to move along the drainage and use the upland benches above the drainage.

Currently, there are few options for medium and large mammal (i.e., deer, mountain lion, bobcat, coyote, and fox) movement along the upper watershed. Small nocturnal mammals such as skunks may still occasionally use the drainage through the area. Aliso Creek is not fenced, allowing free movement of water and wildlife. However, the adjacent landowner upstream of the property has built a wooden in-stream structure that currently restricts movement up and down the stream channel.

On the undeveloped northern portion of the project site, animal movement is less restricted. There continues to be a somewhat natural understory for cover, and large and small animals are able to move through this area without encountering humans or penned animals as they do in the more developed areas. Medium-sized and larger mammals can move up to the fencing on the project site on the south side of Aliso Creek, and can also move down the watershed to the fencing on the east side of Ridgeline Road. Movement beyond these points through the Ranch and adjacent property to the west is restricted by a three-foot high, six-inch wire mesh fence, topped with three feet of barbed wire. This fence surrounds the ranch property on the south side. A heavily used wildlife trail coming up the canyon skirts the fence on the south end of the project site and funnels animals into the trail south and west of the ranch due to the barrier it creates (refer to Appendix H).

No fish are known to use the existing creek within the project site, and no native nursery sites are located at the project site.

Due to the existing restrictions of animal movement on the project site, and because of the limited scope of the proposed project, no new restrictions would be created. The replacement of the existing bridges/culverts with free-span bridges would allow wildlife to move more freely along the creek bottom, which would be considered a beneficial impact of the project. Following project implementation, the project site would be improved with respect to wildlife movement; therefore, the impact would be considered beneficial.

**e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

**Less Than Significant With Mitigation.** An Oak Management and Preservation Plan was prepared by BonTerra Consulting on March 31, 2009 (refer to Appendix G). It was subsequently updated in August 2012. In order to evaluate the site prior to the preparation of the Oak Management and Preservation Plan, a BonTerra Consulting Certified Arborist surveyed the project site on March 6 and 13, 2009. The survey area included all areas within approximately 50 feet of proposed construction areas. A total of 77 trees located within this survey area met the Specific Plan minimum diameter at breast height (dbh) criteria<sup>2</sup> and were addressed. Other native tree species and coast live oak trees with a dbh of less than five inches were tagged and evaluated, but are not addressed in the report as these tree species are regulated by the CDFG, but not by the *Foothill/Trabuco Specific Plan*.

As stated previously, a total of 77 coast live oak trees, with a minimum diameter of 5 inches, occurred within the survey area. Project construction activities would include constructing a gazebo and replacing three existing bridge/culvert structures within Aliso Creek. Few indirect impacts to oak tree resources are expected as a result of these activities. The proposed gazebo is located on a previously graded pad, and construction of this structure would not remove any oak trees. The removal and replacement of three bridge/culvert structures would not remove or impact any oak trees.

<sup>2</sup> Trees exceeding 5 inches in diameter measured at 4.5 feet above the existing grade.

As noted above, none of the trees on the project site need to be removed or thinned for fuel modification purposes; therefore, the fuel modification would only impact the understory of vegetation found on site.

The critical period for maintaining the high quality and value of preserved resources is just prior to and during project construction. If not managed and monitored properly, construction activities may result in direct and indirect impacts to preserved resources, ultimately resulting in the long-term degradation of resources preserved by project design. Potential direct and indirect impacts include:

- Sediment, erosion, and urban runoff deposition within tree root zones;
- Mechanical damage and clearing;
- Disturbance of nesting birds/raptors;
- Root damage; and
- Dust accumulation on tree foliage.

The timely implementation of the mitigation measures listed in the Oak Management and Preservation Plan would minimize impacts to the protected tree resources and facilitate the long-term preservation of oak woodlands on the project site to less than significant levels.

Ongoing facility operations and maintenance activities have the potential to result in clearing of native vegetation, increased runoff, degradation of water quality, and erosion. Ongoing activities consist of the continued operation of the project site as a wedding and general event facility as well as the implementation of the required fuel modification program. Additionally, the small private zoo facilities consisting of animal cages, pens, and corrals would be maintained on site on an ongoing basis. Specific protection and management measures (refer to MM 5.4-6, 5.4-7 and 5.4-8) that minimize impacts during facility use and operation would need to be implemented by the Property Owner in order to reduce any potential for impact to a less than significant level.

**f. Would the project conflict with provisions of an adopted habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?**

**No Impact.** The project site occurs within the Central Subarea of the NCCP/HCP and therefore, the project would be required to comply with the provisions of the NCCP/HCP and its associated IA. The project site is designated “Non-reserve Open Space”. The area along Aliso Creek just south of the project site is also designated a “Habitat Linkage” and is part of the “Proposed NCCP Reserve”. The proposed project would not conflict with the NCCP/HCP. Restoration and completion of the aforementioned structures would be consistent with applicable codes.

## **5.4.2 MITIGATION PROGRAM**

### **Mitigation Measures**

**MM 5.4-1** A section will be added to the Habitat Mitigation and Monitoring Plan (HMMP) described in MM 5.4-2 to address maintenance activities within the southern coastal needlegrass grassland area. The plan will identify modifications necessary to the current maintenance activities to minimize effects on native grasses and herbs. This may include hand weeding; mowing after native grasses have already set seed for the year; biological monitoring during weed-abatement activities; or other measures deemed appropriate to protect these resources. The HMMP shall be prepared by a qualified Biologist and will be submitted to the

County for review and approval to verify that native grassland has been adequately preserved and/or mitigated prior to the issuance of a grading permit.

If the southern coastal needlegrass grassland would be removed (e.g., mowing for fuel modification purposes), focused surveys for special status plants will be conducted within the impact area during the peak flowering period (to be determined by monitoring a reference population). The special status plant surveys will follow the most current survey guidelines (CDFG 2009a or subsequent guideline updates). If any of these species are located within the impact area, the impact would be considered potentially significant, depending on the status of the species and the number of individuals observed. If practicable, the project boundary will be adjusted to avoid impacts on these species. The CNPS does not support any mitigation for special status plants other than avoidance. If the impact is determined to be significant and avoidance is not possible, a strategy including the following measures will be developed based on the most current guidelines (CDFG 2009 or subsequent updates):

- Avoiding impacts to species to the extent possible through project planning;
- Minimizing impacts;
- Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment;
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the project; and
- Compensating for the impact by replacing or providing substitute resources or environments.

If thread-leaved brodiaea is present in the impact area, the project should be redesigned to avoid impacts on this species. If avoidance is not feasible, the Applicant will obtain authorization from the U.S. Fish and Wildlife Service (USFWS) and the CDFG to impact this species. A mitigation plan will be developed in accordance with and approved by the USFWS and the CDFG. Specific measures including but not limited to avoidance, minimization, and compensation will be determined through consultation with the resource agencies. A detailed mitigation plan will be prepared by a qualified Biologist for USFWS and CDFG approval.

The intermediate mariposa lily is addressed in the Central-Coastal NCCP/HCP as an Identified Species that is covered in accordance with the “conditions of coverage” set forth in Section 8.3.2 of the NCCP/HCP IA. If less than 20 individuals of this species are located in the impact area, the impact would be considered fully covered by the County’s participation in the NCCP/HCP, and no further mitigation would be required. However, if more than 20 individuals of this species are located within the impact area, the impact would be considered significant. If avoidance is not feasible, the applicant will obtain authorization from the USFWS and the CDFG to impact this species. Under the NCCP/HCP IA, a mitigation plan will be developed in accordance with and approved by the USFWS and the CDFG. Specific measures including but not limited to avoidance, minimization, and compensation will be determined through consultation with the resource agencies. A detailed mitigation plan will be prepared by a qualified Biologist for USFWS and CDFG approval.

If other special status plant species are located within proposed impact areas, their rarity and abundance will be evaluated by the Project Biologist. A memo will be prepared by the Project Biologist to document the findings of the focused surveys and the evaluation of Project impacts. If the finding is considered to be significant, the appropriate mitigation will be included in the memo and will be implemented by the Project Applicant. Specific measures including, but not limited to, avoidance, minimization, and compensation will be determined through consultation with the County. A detailed mitigation plan will be prepared by a qualified Biologist for County approval.

**MM 5.4-2** Vegetation removal/weed abatement activities will occur from September 16 to January 31, which is outside the peak bird nesting season (February 15–September 15; February 1–June 30 for raptors) to the extent practicable. If these activities cannot occur outside of this time frame, a nesting bird survey will be conducted by a qualified Biologist within three days prior to the onset of vegetation removal/weed abatement activities. The nesting survey shall be provided to the Manager, Permit Services prior to the commencement of any grading activity for the bridges. If no active nests are found, no further mitigation would be required.

If nesting activity is present on the project site, the active site will be protected until nesting activity has ended to ensure compliance with the MBTA and Section 3503.5 of the *California Fish and Game Code*. To protect the nest, the following restrictions will be required until the nest is no longer active, as determined by a qualified Biologist: (1) clearing limits will be established (25–200 feet depending on the sensitivity of the species; a minimum of 300 feet for nesting raptors) in any direction from any occupied nest and (2) access and surveying will be restricted within the buffer. Any encroachment into the buffer area around the known nest will only be allowed if it is determined by a qualified Biologist that the proposed activity will not disturb the nest occupants.

**MM 5.4-3** Prior to the issuance of a Grading Permit, the applicant shall submit a Landscape Plan to the County for review. The Landscape Plan shall indicate the landscape planting palettes and certification will be reviewed by a qualified Biologist to ensure that no invasive, exotic plant species are used in any proposed landscaping. Landscape palettes should include native species as much as possible, as well as non-invasive ornamental species.

**MM 5.4-4** Prior to any impacts on jurisdictional areas, permits/agreements/certifications from the USACE (i.e., a Section 404 Permit), the RWQCB (i.e., a Section 401 Water Quality Certification), and the CDFG (i.e., a Section 1602 Streambed Alteration Agreement) shall be obtained for direct and indirect impacts on areas within these agencies' jurisdictions. As part of the permitting process, the proposed project includes a riparian habitat restoration element that will serve as retroactive mitigation for the loss of jurisdictional resources resulting from the previously conducted vegetation removal. If the resource agencies approve this mitigation, an HMMP shall be prepared and submitted to the regulatory agencies containing the following items:

- ***Responsibilities and qualifications of the personnel to implement and supervise the plan.*** The responsibilities of the Landowner, Specialists, and Maintenance Personnel that would supervise and implement the plan will be specified.

- **Site preparation and planting implementation.** Site preparation will include (1) protection of existing native species; (2) trash and weed removal; (3) native species salvage and reuse (i.e., duff); (4) soil treatments (i.e., imprinting, decompacting); (5) temporary irrigation installation; (6) erosion-control measures (i.e., rice or willow wattles); (7) seed mix application; and (8) container species planting. Plant materials will be obtained from local sources (i.e., from sources within 30 miles of the project site).
- **Schedule.** A schedule will be developed, which includes planting in late fall and early winter (i.e., between October 1 and January 30).
- **Maintenance plan/guidelines.** The Maintenance Plan will include (1) weed control; (2) herbivory control; (3) trash removal; (4) irrigation system maintenance; (5) maintenance training; and (6) replacement planting.
- **Monitoring Plan.** The Monitoring Plan will include (1) qualitative monitoring (i.e., photographs and general observations); (2) quantitative monitoring (i.e., randomly placed transects); (3) performance criteria, as approved by the resource agencies; and (4) guidelines for developing regular site progress reports and annual status reports. The site will be monitored and maintained for up to ten years to ensure successful establishment of riparian habitat within the restored areas. Annual status reports will be submitted to the USACE and CDFG each year throughout the monitoring and maintenance program.
- **Long-term preservation.** Long-term preservation of the site will also be outlined in the conceptual Mitigation Plan to ensure the mitigation site is not impacted by future development.

**MM 5.4-5** Prior to issuance of a building permit, the Applicant will apply for coverage under the State Water Resources Control Board's General Permit for Storm Water Discharge Associated with Construction Activity (Construction Activities General National Pollutant Discharge Elimination System [NPDES] Permit) and will comply with all the provisions of the permit, including the development of a Storm Water Pollution Prevention Plan, which includes provisions for the implementation of Best Management Practices (BMPs) and erosion-control measures.

**MM 5.4-6** Prior to the issuance of the first grading permit, an Oak Management and Preservation Plan shall be submitted to the County to document consistency with the *Foothill/Trabuco Specific Plan*. Specific protection and management measures found in this plan that minimize impacts during facility use and operation shall be implemented by the Property Owner.

**MM 5.4-7** Grading, placement of fill, storage of building materials and heavy equipment, structural development and hardscape shall be prohibited within the dripline of any oak or sycamore trees.

During all construction and grading operations, all oak and sycamore trees on the site located adjacent to the limits of grading and identified on the plans as trees to be preserved, shall be adequately fenced and protected from encroachment by grading and construction equipment. In the event that any oak or sycamore trees identified for preservation in the plans are inadvertently or intentionally

injured or removed, the applicant shall submit a Tree Management and Replacement Plan for the damaged tree(s). When applicable, the Tree Management and Preservation Plan shall be submitted, reviewed by OC Planning and approved prior to the issuance of any additional permits and/or certificate of use and occupancy for the project. All trees removed shall comply with the replacement ratios found in Section III.E.1.0.c. of the F/TSP.

**MM 5.4-7** Prior to the issuance of a building permit, the applicant shall dedicate an easement for scenic/resource preservation purposes over the oak woodland areas indicated on the Oak Tree Management Plan to the County of Orange or its designee in a manner approved by the Manager, OC Parks and/or Manager, OC Community Development. The applicant shall not grant any easement(s) over the property subject to the resource preservation easement unless such easement(s) are first reviewed and approved by the Manager, OC Parks and/or Manager, OC Community Development. Maintenance of the resource preservation easement area shall be the responsibility of the applicant or assigns and successors and shall not be included in said easement offer.

Prior to the issuance of a building permit, or as determined by the Manager OC Parks and/or Manager, OC Community Development, the applicant shall survey and monument all scenic/resource preservation easement dedications. The applicant shall monument the property line of the dedication area(s) with durable, long lasting, high visibility markers at all angle points and line of sight obstructions to the satisfaction of the Manager, OC Parks and/or Manager, OC Community Development.

## **5.5 CULTURAL/SCIENTIFIC RESOURCES**

A cultural resources study was prepared for this IS/MND on April 9, 2009 (refer to Appendix I) and was updated in August 2012. The study consisted of (1) a records search undertaken at the California Historical Resources Inventory System's (CHRIS) South Central Coastal Information Center (SCCIC) at California State University, Fullerton; (2) initiation of Native American scoping through consultation with the Native American Heritage Commission (NAHC); (3) a paleontological records search at the Los Angeles County Museum (LACM); (4) a pedestrian field reconnaissance; and (5) a letter report, that includes an assessment of the project's potential to adversely impact cultural resources and recommendations for mitigating any adverse impacts to a less than significant level.

### **5.5.1 IMPACT ANALYSIS**

- a. **Would the project cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?**

***Less than Significant Impact with Mitigation.*** On March 5, 2009, Patrick Maxon of BonTerra Consulting conducted a field survey of the Rancho Las Lomas project area. The eastern portion of the property, nearest Santiago Canyon Road and Aliso Creek, is characterized by gentle to moderately sloping hillsides. Steeper, more rugged slopes to the west characterize the remaining property. The entire project was examined in an overview fashion; the development across the property was noted; and those areas that may see future development were more closely examined. It is obvious that the majority of the property has been developed with

buildings, roads, parking lots, landscaping, and other development. A house and barn that appear to be more than 50 years of age remain intact on the property.

In addition to the archaeological inventory records, reports and historic maps, an examination was made of the Historic Property Data File (HPDF) maintained by the State of California Office of Historic Preservation. The HPDF is a listing of buildings and structures within a specified jurisdiction that have been evaluated for listing on the National Register of Historic Places (NRHP) and/or the California Register of Historical Resources (CRHR). Each property is assigned a status code after a determination has been made. A search of the file at the SCCIC found no structures listed within one mile of the project area.

The house and barn that appear to be more than 50 years old are extant on the property; they are not proposed for development or improvement. However, it is recommended that, pursuant to the Office of Historic Preservation (1995) Instructions for Recording Historical Resources which suggests recording any resource over 45 years of age, the original house and barn noted on the property should be recorded on State of California Department of Parks and Recreation (DPR) 523 site recording forms and entered into the CHRIS data base at the SCCIC. Less than significant impacts would occur as a result of this mitigation (MM 5.5-3).

**b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?**

***Less than Significant Impact with Mitigation.*** Patrick Maxon of BonTerra Consulting conducted an archaeological/historical records search on March 2, 2009 at the SCCIC. This records search determined that the project area vicinity is extremely sensitive for archaeological sites. Sites in the area range from prehistoric campsites to small, lithic procurement sites and from historic-era adobes to small, historic trash deposits. The historic, circa 1870s Henry Serrano Adobe (CA-ORA-1097) is within ½ mile and is located north of the project site. Two previous cultural resource studies contain portions of the current study area.

During the late prehistoric period, the project area was near the boundary occupied by the Native American societies known to anthropologists as the Juaneño and the Luiseño (Kroeber 1925). The name “Juaneño” refers to those people who, in historic times, were administered by the Spanish from Mission San Juan Capistrano. Today, many contemporary Juaneño who identify themselves as descendants of the indigenous people refer to themselves as members of the Acjachemen Nation.

The Acjachemen population is thought to have numbered upwards of 3,500 during the precontact period (O’Neil 2002). It is known that 1,138 local Native Americans, consisting primarily of Acjachemen but also including Gabrielino, coastal and interior Luiseño, Serrano, and Cahuilla, resided at Mission San Juan Capistrano in 1810 (Engelhardt 1922:175).

Post-contact history for the state of California generally is divided into three periods: the Spanish Period (1769–1822), the Mexican Period (1822–1848), and the American Period (1848–present). Although there were brief visits by Spanish, Russian, and British explorers between 1529 and 1769, the beginning of Spanish settlement in California occurred in 1769.

Homesteaders occupied the Trabuco Canyon area by the 1870s, and over time, honey became an important cash crop for them. Beginning in the 1870s, mines were established throughout the Santa Ana Mountains. Various minerals, including gold, silver, coal and clay, were extracted in small amounts (Branche-Cruz 1988; Sleeper 1988).

Henry Serrano, great, great grandson of Don Francisco Serrano, lived in an adobe built under the direction of Joaquin Serrano, grandson of Don Francisco. This historic, circa 1870s Adobe (CA-ORA-1097) was recorded immediately northwest of the Rancho Las Lomas property.

Rancho Las Lomas was developed between 1975 and 1985 by the Lawrence Family. The property's buildings were constructed without approved permitting.

Although no significant cultural resources are recorded within the project area, it can be expected that unknown resources exist in the subsurface or are obscured by existing development and/or vegetation. It is assumed that the proposed project will disturb native alluvial sediments (as opposed to man-made fill, stockpile, or other non-native materials); therefore, in order to reduce the potential for any impact, it is recommended that a qualified Archaeologist must monitor grading activities in those areas and/or sediments deemed sensitive for cultural resources (refer to MM 5.5-1).

**c. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?**

***Less than Significant Impact with Mitigation.*** A paleontological records search determined that, although there were no recorded fossil localities within the current project area, the LACM has fossil localities from sedimentary units similar to those that occur in the project area.

The formations that could yield fossils are the mostly marine Vaqueros Formation and the mostly terrestrial Sespe Formation. These formations are usually referred to as the Sespe/Vaqueros Formation, undifferentiated because they intergrade and interdigitate in the project area and are difficult to distinguish. These formations range in age from the late Eocene through the early Miocene. A Sespe/Vaqueros locality west of Modjeska Peak and west of Santiago Canyon Road has produced both marine and terrestrial fossils, including sharks, rays, whales, sea turtles, horses, entelodonts, and camels. Although there are no vertebrate fossil localities presently recorded from the Sespe facies of this rock sequence in Orange County, there are a great number of fossil localities recorded from the Sespe Formation, primarily in Ventura County. Because there are no currently known fossils from the Sespe Formation in this area, excavations on the project site could produce significant or highly significant fossils.

It is possible that the proposed project will disturb paleontologically sensitive bedrock formations (as opposed to man-made fill, stockpile, or other non-native materials). A qualified Paleontological Monitor must be retained to monitor grading if it can be determined that any of the sensitive bedrock formations in the project area will be impacted. A qualified, cross-trained monitor can be retained to monitor for both cultural and paleontological resources. If it becomes clear during the course of the project that the sediments are not sensitive for the presence of resources, monitoring efforts can be scaled back, or ceased, accordingly. With implementation of MM 5.5-2 less than significant impacts would occur.

**d. Would the project disturb any human remains, including those interred outside of formal cemeteries?**

***Less than Significant Impact.*** The proposed site is currently developed and no evidence of human remains was observed during a field survey conducted by BonTerra Consulting on March 5, 2009. The potential for the discovery of any human remains is very low. However, project development would include conditions to mitigate for the discovery of human remains on the site, no matter how remote (refer to SC 5.5-1).

## 5.5.2 MITIGATION PROGRAM

### **Standard Conditions of Approval**

- SC 5.5-1** If human remains are encountered during excavation activities, all work shall halt and the County Coroner shall be notified (California Public Resources Code §5097.98). The Coroner will determine whether the remains are of forensic interest. If the Coroner, with the aid of the County-approved Archaeologist, determines that the remains are prehistoric, s/he will contact the Native American Heritage Commission (NAHC). The NAHC shall be responsible for designating the most likely descendant (MLD), who will be responsible for the ultimate disposition of the remains, as required by Section 7050.5 of the California Health and Safety Code. The MLD shall make his/her recommendation within 48 hours of being granted access to the site. The MLD's recommendation shall be followed if feasible, and may include scientific removal and non-destructive analysis of the human remains and any items associated with Native American burials (California Health and Safety Code §7050.5). If the landowner rejects the MLD's recommendations, the landowner shall rebury the remains with appropriate dignity on the property in a location that will not be subject to further subsurface disturbance (California Public Resources Code §5097.98).

### **Mitigation Measures**

- MM 5.5-1** Prior to the issuance of the grading permit for the construction and replacement of the bridges, the applicant shall provide written evidence to the Manager, Permit Services, that applicant has retained a County-certified archaeologist, to observe grading activities and salvage and catalogue archaeological resources as necessary. The archaeologist shall be present at the pre-grade conference, shall establish procedures for archaeological resource surveillance, and shall establish, in cooperation with the applicant, procedures for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of the artifacts as appropriate. If the archaeological resources are found to be significant, the archaeological observer shall determine appropriate actions, in cooperation with the project applicant, for exploration and/or salvage.

Prior to the release of the grading bond the applicant shall obtain approval of the archaeologist's follow-up report from the Manager, Permit Services. The report shall include the period of inspection, an analysis of any artifacts found and the present repository of the artifacts. The archaeologist shall prepare excavated material to the point of identification. Applicant shall offer excavated finds for curatorial purposes to the County of Orange, or its designee, on a first refusal basis. These actions, as well as final mitigation and disposition of the resources, shall be subject to the approval of the Manager, Permit Services. Applicant shall pay curatorial fees if an applicable fee program has been adopted by the Board of Supervisors, and such fee program is in effect at the time of presentation of the materials to the County of Orange or its designee, all in a manner meeting the approval of the Manager, Permit Services.

- MM 5.5-2** Prior to the issuance of the grading permit for construction and replacement of the bridges, the project applicant shall provide written evidence to the Manager, Permit Services, that applicant has retained a County certified paleontologist to observe grading activities and salvage and catalogue fossils as necessary. The paleontologist shall be present at the pre-grade conference, shall establish

procedures for paleontological resource surveillance, and shall establish, in cooperation with the applicant, procedures for temporarily halting or redirecting work to permit sampling, identification, and evaluation of the fossils. If the paleontological resources are found to be significant, the paleontologist shall determine appropriate actions, in cooperation with the applicant, to ensure proper exploration and/or salvage.

Prior to the release of the grading bond the applicant shall submit the paleontologist's follow up report for approval by the Manager, Permit Services. The report shall include the period of inspection, a catalogue and analysis of the fossils found, and the present repository of the fossils. Applicant shall prepare excavated material to the point of identification, and offer excavated finds for curatorial purposes to the County of Orange, or its designee, on a first refusal basis. These actions, as well as final mitigation and disposition of the resources, shall be subject to approval by Manager, Permit Services. Applicant shall pay curatorial fees if an applicable fee program has been adopted by the Board of Supervisors, and such fee program is in effect at the time of presentation of the materials to the County of Orange or its designee, all in a manner meeting the approval of the Manager, Permit Services.

- MM 5.5-3** Pursuant to the Office of Historic Preservation (1995) Instructions for Recording Historical Resources, which suggests recording any resource over 45 years of age, prior to the issuance of a building permit, the applicant shall provide the County evidence that the original house and barn noted on the property shall be recorded on State of California Department of Parks and Recreation (DPR) 523 site recording forms and entered into the California Historic Resources Information System (CHRIS) database at the South Central Coastal Information Center (SCCIC).

## **5.6 GEOLOGY AND SOILS**

Multiple geotechnical investigations have been conducted on the subject property (refer to Appendix B). The investigations have covered limited sections of the property, although all of the project area has been studied as part of one or more investigations.

### **5.6.1 IMPACT ANALYSIS**

- a. **Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:**
  - i) **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault zoning map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?**

***Less Than Significant Impact with Mitigation.*** The proposed project was designed to avoid or minimize geotechnical constraints on site; several previous geotechnical investigations on the Rancho Las Lomas site were used to guide the site planning process. Implementation of the proposed project would include specific Project Design Features (PDFs), as identified below. These features include:

- The installation of positive drainage facilities such as sloping concrete flatwork and graded earth swales, directing surface waters away from structure foundations and building walls and
- The removal of any unstable materials exposed during the grading process, or found to underlie the existing slopes adjoining proposed improvements.

Significant faults in the region include the Aliso Fault, located approximately two miles east of the project site, and a zone of unnamed faults along the projected trace of the Cristianitos Fault, located less than one mile west of the site. More distant active and potentially active faults include the Whittier-Elsinore, Newport-Inglewood, San Jacinto, Sierra Madre, and San Andreas Faults (see Exhibit 7, Regional Faults). A review of earthquake epicenters indicated that a series of moderate earthquakes with magnitudes of 4.0 and 5.5 have historically occurred just northeast of the site (Leighton and Associates 1983; Petra 2002). This cluster of epicenters (earthquakes) has been attributed to seismic activity on the Whittier-Elsinore Fault in 1938 and 1987, which most likely resulted in significant ground shaking at the site (Petra Geotechnical, Inc. 2002; Schoenherr 1992).

Fractured bedrock material is exposed in the upper five to ten feet of canyon walls in the central portion of the site; however, it appears to have resulted from weathering and slope creep rather than from faulting. No significant faults are known to transect the Rancho Las Lomas property; no Alquist-Priolo Special Studies Zones have been established to be on or near the site. In the absence of any major faults crossing the site, there is no potential for ground rupture from fault displacement (Leighton and Associates 1983).

While no major faults transect the proposed project site, moderate intensities of seismic ground shaking can be anticipated. This would be as a result of earthquakes along one of the many local or regional faults. However, the potential for any impacts would be reduced to less than significant through conformance with the 2010 California Building Standards Code, which includes the 2010 California Building Code, the Electrical Code, the Mechanical Code, the Plumbing Code, and the Energy Code (refer to SC 5.6-1).

## **ii) Strong seismic ground shaking?**

***Less Than Significant Impact with Mitigation.*** As indicated above, while no major faults transect the proposed project site, moderate intensities of seismic ground shaking can be anticipated. This would be as a result of earthquakes along one of the many local or regional faults. However, the potential for any impacts would be reduced to less than significant through conformance with the 2010 California Building Standards Code, which includes the 2010 California Building Code, the Electrical Code, the Mechanical Code, the Plumbing Code, and the Energy Code (refer to SC 5.6-1).

## **iii) Seismic-related ground failure including liquefaction?**

***Less Than Significant Impact with Mitigation.*** Liquefaction is generally associated with relatively high intensities of ground shaking, shallow groundwater conditions, and the presence of loose sandy soils or alluvial deposits. Because of the soil conditions that underlie the site and taking into account the moderate ground shaking that would be expected to occur in the event of a seismic event, the potential for liquefaction would be considered to be slight, even though shallow groundwater could be present locally along the canyon bottom during and shortly after the rainy season (Leighton and Associates 1983). A detailed soils report is required prior to the submission of final grading plans (MM 5.6-12).





#### **iv) Landslides?**

**Less Than Significant Impact with Mitigation.** In their geologic reconnaissance and environmental assessment of the proposed project site on February 4, 1983, Leighton and Associates, determined the slope stability of the site to be generally favorable, as evidenced by the absence of significant landslides; this was reaffirmed by Petra Geotechnical, Inc. on March 5, 2002. While the on-site bedrock formation is susceptible to erosion and relative shallow, slump-type failures, reconnaissance and assessment determined that the composition and geologic structure of the underlying bedrock formations were not conducive to major landslides. Less than significant seismic or liquefaction impacts would occur from project development given implementation of recommendations from the geotechnical investigation, including MMs 5.6-1 through MM 5.6-4.

##### **b. Would the project result in substantial soil erosion or the loss of topsoil?**

**Less Than Significant Impact with Mitigation.** Geotechnical investigations performed for the proposed project site have indicated that erosion related to stormwater runoff is rated as slight for the majority of the property. However, erosion could range to moderate or severe along the Aliso Creek during heavy runoff periods such as major storm events. Federal Emergency Management Agency (FEMA) National Flood Insurance Program Maps (NFIP) show that the potential inundation area anticipated from a 100-year flood in Aliso Creek begins at Cook's Corner and extends southward, away from the project site (Leighton and Associates 1983). If construction takes place on a graded slope, the erosion and sedimentation potential would only be slight because the slopes would be constructed and landscaped in accordance with County of Orange requirements. Only approved surface drainage and control devices would be used to avoid potential runoff and loss of topsoil. Per MM 5.6-1, positive drainage facilities (such as sloping concrete flatwork and graded earth swales) would be provided around new construction areas to direct all surface waters away from structure foundations and building walls and to ensure complete drainage within 48 hours of rainfall during ambient drying conditions. With the incorporation of this mitigation measure, impacts from erosion would be less than significant.

##### **c. Would the project be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?**

**Less Than Significant Impact with Mitigation.** Rancho Las Lomas is situated on the southern flank of the Santa Ana Mountains in the northwest Peninsular Range Province of Southern California. This region is composed of a sequence of marine to non-marine sedimentary strata, ranging in age from late Cretaceous to early Miocene, which were uplifted and tilted southwestward.

The natural terrain of the site is characterized by gentle to moderately sloping hillsides adjoining the canyon bottom of Aliso Creek in the eastern one-third, and steeper, more rugged hillside ascending westward in the remaining two-thirds of the site. The maximum topographic relief (elevation difference between the highest and lowest points) within the property is approximately 285 feet. Slope gradients range from approximately 20 percent near the canyon bottom and on the gentle knoll in the northern portion of the property, to about 50 percent and locally steeper on the ridge flanks.

The composition and geologic structure of the underlying bedrock formations are generally not prone to major landslides, provided potentially adverse geologic conditions are recognized and mitigated during grading (refer to MMs 5.6-5, and 5.6-7). The on-site clay-rich beds within the

bedrock have a slight potential to slide if erosion or excavations undercut the strata, thereby leaving the slope without sufficient lateral support.

Additionally, as identified above, given the soil conditions that underlie the site and taking into account the moderate ground shaking that can be expected to occur during a seismic event, the potential for liquefaction is considered to be slight, even though shallow groundwater could be present locally along the canyon bottom during and shortly after the rainy season.

Project grading is expected to be minimal and unstable soils would be avoided during grading activities. ; With the implementation of MM 5.6-3, which requires all fills to be placed in lifts not exceeding six inches in thickness, and then watered or air-dried as necessary to achieve a moisture content that is two to five percent above optimum moisture content, thoroughly blended, and then compacted in place to a minimum relative compaction of 90 percent, impacts would be reduced to a less than significant level. Each fill lift would be treated in a similar manner; subsequent lifts would not be placed until the preceding lift has been tested and approved by the project's geotechnical consultant (refer to MM 5.6-10). The potential for impacts related to utility trench backfill would also be avoided through a minimum relative compaction of 90 percent. When on-site soils are used as backfill, mechanical compaction would be utilized. Density testing, along with probing, would be performed to verify adequate compaction.

Backfill related to grading would be placed in approximately 12- to 18-inch thick maximum lifts, and then mechanically compacted with a hydra-hammer, pneumatic tamper, or similar mechanism that would be able to achieve the minimum relative compaction of 90 percent (refer to MM 5.6-8). Per MM 5.6-5, an alternative for shallow trenches where pipe could be damaged by mechanical compaction equipment (such as under building floor slabs) would be the importation of clean sand with a Sand Equivalent value (clay content) of 30 percent. No specific relative compaction would be required; however, observation and probing, and if deemed necessary, testing would be performed by a representative of the project geotechnical consultant to verify adequate compaction.

Should utility trenches be proposed parallel to any building footing (interior or exterior trench), the bottom of the trench would not extend below a 1:1 plane , which would be projected downward from the outside bottom edge of adjacent foot (per MM 5.6-8). When this condition occurs, the adjacent footing would be deepened or the trench would be backfilled with sand-cement slurry.

With the implementation of MMs 5.6-3, 5.6-4, 5.6-5, 5.6-7, and 5.6-8, any potential for impacts from geological conditions on site would be minimized to a level considered less than significant.

**d. Would the project be located on expansive soils, as defined in Table 18-1-B of the California Building Code (1994), creating substantial risks to life or property?**

**Less Than Significant Impact with Mitigation.** Alluvium and slope wash deposits occur in the valley bottom areas in the central part of the site. Ephemeral tributaries (only exist for a short period following precipitation) contain little or no alluvium. There are minor amounts of younger alluvium in the active stream channels and local occurrences of older alluvium along the flanks of Aliso Creek and below Santiago Canyon Road. Some fill is present along access roads and is likely associated with the planted grove areas and the road realignment grading, which took place sometime after 1974 (Leighton and Associates 1983; Petra Geotechnical, Inc. 2002).

The most predominant soil types on the project site are Alo clay, which mantles nearly all of the steeper slopes, and Sorrento loam. Top soils are generally less than two to three feet thick. The clay typically has a low permeability and a high shrink-swell potential. These characteristics are not desirable from an engineering standpoint and can present some building site development limitations. Both soils are rated as having high erosion potential where exposed.

An average shrinkage factor, estimated at 15 percent, would occur when excavated on-site soils are replaced as properly compacted fill. A subsidence estimate of 0.10 foot is expected when exposed bottom surfaces in removal areas are scarified and re-compacted (Leighton and Associates 1983). The formations underlying the site have been stable, as judged by the absence of landslides (Leighton and Associates 1983). However, due to the moderate to steep topography on the western portion of the site and the presence of surficial soil and weathered bedrock, that portion of the site has the potential to be susceptible to shallow failures such as mudflows. If unstable materials were to be exposed during the grading process, or if unstable materials underlie the existing slopes adjoining proposed improvements, construction would be stopped, and corrective measures would be immediately utilized. With implementation of mitigation, less than significant impacts would occur.

The results of laboratory tests performed by Petra Geotechnical, Inc. in November 1995 indicate that the soil materials existing on the Rancho Las Lomas site exhibit a Low to Medium expansion potential (Petra 1995). Expansive soils characteristics are due to the presence of swelling clay minerals (i.e., Alo clay). As they get wet, the clay minerals absorb water molecules and expand; conversely, as they dry they shrink, leaving large voids in the soil. Swelling clays can control the behavior of virtually any type of soil if the percentage of clay is more than about five percent by weight.

A geotechnical consultant shall be present on site during grading operations to verify proper placement and compaction of all fills (refer to MM 5.6-9, below).

A detailed geotechnical report shall be submitted to the Manager, Permit Services prior to the issuance of a grading permit for the bridges (refer to SC 5.6-2, below). If deemed necessary, the Applicant shall record a letter of consent from the affected property owners permitting off-site grading, cross lot drainage, drainage diversions and/or unnatural concentrations. The Applicant shall obtain approval of the form of the letter of consent from the Manager, Permit Services before recordation of the letter (SC 5.6-3).

- e. Would the project have soils incapable of supporting the use of septic tanks or alternative wastewater disposal system where sewers are not available for the disposal of wastewater?**

**No Impact.** Septic tanks no longer exist on the site and are not proposed as part of the project. As such, no impacts would occur.

## **5.6.2 MITIGATION PROGRAM**

### **Standard Conditions of Approval**

- SC 5.6-1** The proposed project shall be in conformance with the 2010 California Building Standards Code which includes the 2010 California Building Code, the Electrical Code, the Mechanical Code, the Plumbing Code, and the Energy Code. Prior to the issuance of a grading permit, the applicant shall submit proof to the Manager, Permit Services that the project is in conformance with the 2010 California Building Code.

- SC 5.6-2** Prior to the issuance of a grading permit for construction of the bridges, the applicant shall submit a geotechnical report to the Manager, Permit Services, for approval. The report shall include the information and be in the form as required by the Grading Code and Grading Manual and should evaluate the existing graded conditions as they impact the existing buildings and site in general. Evaluation is to determine compliance with current Grading and Building Codes and/or what will be necessary to comply with said codes.
- SC 5.6-3** Prior to the recordation of a subdivision map or prior to the issuance of any grading permit, whichever comes first, and if determined necessary by the Manager, Permit Services, the applicant shall record a letter of consent from the affected property owners permitting offsite grading, cross lot drainage, drainage diversions and/or unnatural concentrations. The applicant shall obtain approval of the form of the letter of consent from the Manager, Permit Services before recordation of the letter.

### **Mitigation Measures**

- MM 5.6-1** Positive drainage facilities (such as sloping concrete flatwork and graded earth swales), which ensure complete drainage within 48 hours of rainfall during ambient drying conditions, shall be provided around new construction areas to direct all surface waters away from structure foundations and building walls. This shall be subject to verification by the project geotechnical consultant.
- MM 5.6-2** If unstable materials are exposed during the grading process, or if unstable materials are found to underlie the existing slopes adjoining proposed improvements, construction shall be stopped, and corrective measures shall be immediately utilized. This shall be subject to verification by the project geotechnical consultant.
- MM 5.6-3** All fills shall be placed in lifts not exceeding six inches in thickness, and then watered or air-dried as necessary to achieve a moisture content that is two to five percent above optimum moisture content, thoroughly blended, and then compacted in place to a minimum relative compaction of 90 percent. This measure shall be subject to verification by the project geotechnical consultant.
- MM 5.6-4** As an alternative for shallow trenches where pipe could be damaged by mechanical compaction equipment (such as under building floor slabs), imported clean sand with a Sand Equivalent value of 30 percent could be utilized. No specific relative compaction would be required; however, observation and probing, and if deemed necessary, testing shall be performed by a representative of the project geotechnical consultant to verify adequate compaction.
- MM 5.6-5** No grading shall occur on slopes exceeding 45 percent except for fuel-breaks and community-wide emergency access routes. Subject to verification by the project geotechnical consultant.
- MM 5.6-6** All utility trench backfill shall be compacted to a minimum relative compaction of 90 percent. When on-site soils are used as backfill, mechanical compaction shall be utilized. Density testing, along with probing, would be performed to verify adequate compaction. This shall be subject to verification by the project geotechnical consultant.

- MM 5.6-7** Backfill shall be placed in approximately 12- to 18-inch-thick maximum lifts, and then mechanically compacted with a hydra-hammer, pneumatic tamper, or similar mechanism that would be able to achieve the minimum relative compaction of 90 percent. This shall be subject to verification by the project geotechnical consultant.
- MM 5.6-8** Should utility trenches be proposed parallel to any building footing (interior or exterior trench), the bottom of the trench shall not extend below a 1:1 plane, which would be projected downward from the outside bottom edge of the adjacent footing. When this condition occurs, the adjacent footing shall be deepened, or the trench backfilled with sand-cement slurry. This shall be subject to verification by the project geotechnical consultant.
- MM 5.6-9** A geotechnical consultant shall be present on site during grading operations to verify proper placement and compaction of all fills, as well as to verify compliance with all other mitigation requirements. Prior to the issuance of a grading permit, the applicant shall submit proof that a geotechnical consultant has been retained to observe grading operations.
- MM 5.6-10** Exposed bottom surfaces in each removal area would be observed and approved by the project geotechnical consultant prior to placing fill, and no fills would be placed without prior approval from the geotechnical consultant.

## **5.7 GREENHOUSE GAS EMISSIONS**

### **5.7.1 ENVIRONMENTAL SETTING**

Climate change refers to any significant change in measures of climate (such as average temperature, precipitation, or wind patterns) over a period of time. Climate change may result from natural factors, natural processes, and human activities that change the composition of the atmosphere and alter the surface and features of the land. Significant changes in global climate patterns have recently been associated with global warming, which is an average increase in the temperature of the atmosphere near the Earth's surface; this is attributed to an accumulation of greenhouse gas (GHG) emissions in the atmosphere. GHGs trap heat in the atmosphere which, in turn, increases the Earth's surface temperature. Some GHGs occur naturally and are emitted to the atmosphere through natural processes, while others are created and emitted solely through human activities. The emission of GHGs through fossil fuel combustion in conjunction with other human activities appears to be closely associated with global warming (OPR 2008).

GHGs, as defined under California's Assembly Bill 32 (AB 32) (*California Health and Safety Code* §38505), include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>). General discussions on climate change often include water vapor, ozone, and aerosols in the GHG category. Water vapor and atmospheric ozone are not gases that are formed directly in the construction or operation of development Projects, nor can they be controlled in these Projects. Aerosols are not gases. While these elements have a role in climate change, they are not considered by either regulatory bodies, such as CARB, or climate change groups, such as the California Climate Action Registry (CCAR), as gases to be reported or analyzed for control. Therefore, no further discussion of water vapor, atmospheric ozone, or aerosols is provided.

GHGs vary widely in the power of their climatic effects; therefore, climate scientists have established a unit called global warming potential (GWP). The GWP of a gas is a measure of

both potency and lifespan in the atmosphere as compared to CO<sub>2</sub>. For example, since CH<sub>4</sub> and N<sub>2</sub>O are approximately 21 and 310 times more powerful than CO<sub>2</sub>, respectively, in their ability to trap heat in the atmosphere, they have GWPs of 21 and 310, respectively (CO<sub>2</sub> has a GWP of 1). Carbon dioxide equivalent (CO<sub>2</sub>e) is a quantity that enables all GHG emissions to be considered as a group despite their varying GWP. The GWP of each GHG is multiplied by the prevalence of that gas to produce CO<sub>2</sub>e. The atmospheric lifetime and GWP of selected GHGs are summarized in Table 10.

**TABLE 10  
GLOBAL WARMING POTENTIALS AND ATMOSPHERIC LIFETIMES**

Greenhouse Gas	Atmospheric Lifetime (years)	Global Warming Potential (100-year time horizon)
Carbon Dioxide (CO <sub>2</sub> )	50.0–200.0	1
Methane (CH <sub>4</sub> )	12.0	21
Nitrous Oxide (N <sub>2</sub> O)	114.0	310
HFC-134a	48.3	1,300
PFC: Tetrafluoromethane (CF <sub>4</sub> )	50,000.0	6,500
PFC: Hexafluoroethane (C <sub>2</sub> F <sub>6</sub> )	10,000.0	9,200
Sulfur Hexafluoride (SF <sub>6</sub> )	3,200.0	23,900
Source: CCAR 2009.		

AB 32, the California Global Warming Solutions Act of 2006, recognizes that California is the source of substantial amounts of GHG emissions. The statute states that:

Global warming poses a serious threat to the economic well being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.

In order to avert these consequences, AB 32 establishes a State goal of reducing GHG emissions to 1990 levels by the year 2020, which is a reduction of approximately 16 percent from forecasted emission levels, with further reductions to follow (CARB 2011).

## 5.7.2 IMPACT ANALYSIS

- a. **Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

**Less Than Significant Impact.** In developing methods for GHG impact analysis, there have been suggestions of quantitative thresholds, often referred to as screening levels, that define an emissions level below which it may be presumed that climate change impacts would be less than significant. Neither the SCAQMD nor the County of Orange has adopted a significance threshold for the GHG emissions from non-industrial development projects. Consequently, the County has determined, pursuant to the discretion afforded by Sections 15064.4(a) and 15064.4(b) of the CEQA Guidelines, to quantify the GHG emissions from the proposed Project based on the methodologies proposed by SCAQMD's GHG CEQA Significance Threshold

Working Group. On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for a tiered threshold approach wherein Tier 1 determines if a project qualifies for an applicable CEQA exemption, Tier 2 determines consistency with GHG reduction plans, and Tier 3 proposes a numerical screening value as a threshold. At their September 28, 2010, meeting, the Working Group suggested a Tier 3 threshold of 3,000 metric tons of carbon dioxide equivalent (MTCO<sub>2</sub>e) per year for all residential and commercial land use types. In the absence of adopted thresholds, the County has elected to assess the significance of the Project's GHG emissions using this SCAQMD proposed Tier 3 screening threshold. It is noted that the use of the SCAQMD's screening threshold is selected as a threshold for the proposed Project because it is located in the South Coast Air Basin and these thresholds are based on the best available information and data at the time of preparation of this document. The development of CEQA project-level thresholds is an ongoing effort on State, regional, and County levels, and significance thresholds may differ for future projects based on further data and information that may be available at that time.

### **Construction**

Construction GHG emissions are generated by vehicle engine exhaust from construction equipment, on-road hauling trucks, vendor trips, and worker commuting trips. Construction GHG emissions were calculated by using CalEEMod. The model and construction assumptions are described in Section 5.3, Air Quality, and are in Appendix E. The results are output in MTCO<sub>2</sub>e for each year of construction. The estimated construction GHG emissions for the Project are shown in Table 11.

Because impacts from construction activities occur over a relatively short-term period of time, they contribute a relatively small portion of the overall lifetime project GHG emissions. In addition, GHG emissions reduction measures for construction equipment are relatively limited. Therefore, SCAQMD staff recommends that construction emissions be amortized over a 30-year project lifetime, so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies (SCAQMD 2008). The total emissions of all construction phases are summed (98 MTCO<sub>2</sub>e/yr) and divided over the 30 year life of the project. As shown in Table 11, the 30-year amortized construction emissions would be 3 MTCO<sub>2</sub>e/yr.

**TABLE 11  
ESTIMATED GHG EMISSIONS FROM CONSTRUCTION**

<b>Year</b>	<b>Emissions MTCO<sub>2</sub>e</b>
2014	27
2015	38
2016	33
<b>Total</b>	<b>98</b>
<b>Annual Emissions<sup>a</sup></b>	<b>3</b>
MTCO <sub>2</sub> e: metric tons of carbon dioxide equivalent	
<sup>a</sup> Combined total amortized over 30 years	

### **Operations**

As described in Section 5.3, Air Quality, there would be no trip generation (i.e., new vehicle trips attributed to the proposed project), and as such, no project-related mobile-source emissions; no

stationary-source emissions; and no area-source emissions. Therefore, there would be no project-related operational GHG emissions.

Therefore, the estimated increase in annual GHG emissions, including amortized construction emissions, would be 3 MTCO<sub>2</sub>e/yr. This value may be compared with and is less than the proposed SCAQMD Tier 3 screening threshold of 3,000 MTCO<sub>2</sub>e/yr for all land use types. It is accepted as very unlikely that any individual development project would have GHG emissions of a magnitude to directly impact global climate change; therefore, any impact would be considered on a cumulative basis. Because the proposed project's GHG emissions would be less than 3,000 MTCO<sub>2</sub>e/yr, the emissions would not be cumulatively considerable. The impact would be less than significant; no mitigation is required.

**b. Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?**

**No Impact.** As discussed above, the principal State plan and policy adopted for the purpose of reducing GHG emissions is AB 32 (*California Health and Safety Code* §38500-38599). The quantitative goal of AB 32 is to reduce GHG emissions to 1990 levels by 2020. Statewide plans and regulations, such as GHG emissions standards for vehicles and the Low Carbon Fuel Standard, are being implemented at the statewide level, and compliance at the specific plan or project level is not addressed. Therefore, the proposed Project does not conflict with these plans and regulations.

## **5.8 HAZARDS AND HAZARDOUS MATERIALS**

### **5.8.1 IMPACT ANALYSIS**

**a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**

**No Impact.** The proposed project would not involve the handling or use of hazardous materials. Additionally, it would not result in the upset of hazardous materials that would result in the exposure of people to health hazards. As such, no releases of hazardous materials would result from project implementation. No impacts from site development would occur and no mitigation is required.

**b. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?**

**No Impact.** As indicated above, the proposed project would not involve the handling or use of hazardous materials, nor would it result in the generation of hazardous emissions, materials or wastes during operation. Hazardous materials used during construction would be used in accordance with County, State, and federal regulations. Impacts would be considered less than significant and no mitigation is required.

**c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?**

**No Impact.** The nearest school, Portola Hills Elementary, is approximately 0.8 mile southwest of the project site. Therefore, the project would not emit hazardous emissions or handle

hazardous or acutely hazardous materials, substances, or wastes within one-quarter mile of an existing school. No impacts would occur and no mitigation is required.

- d. Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?**

**No Impact.** A search of hazardous materials databases has been prepared for the project site and adjacent areas by Environmental Data Resources, Inc. (EDR 2008). The complete report is included as Appendix J. According to the report, the project site is listed as not containing any hazardous materials sites. The nearest identified sites are located approximately one-quarter mile southwest of the project site and include (1) two U.S. Housing and Urban Development (HUD) sites, which generate oxygenated solvents as waste; (2) a property located at 28985 Canyon Crest, which experienced a mineral oil leak in 2000; and (3) an Intown Properties Site, which generates household waste. It is important to note that the aforementioned leak at the Canyon Crest property was reported to relevant authorities in 2000, though no closure date was given in the report with respect to the site. None of these sites represent a hazard. Implementation of the proposed project would not create a significant hazard to the public; to visitors or staff at the project site; or to the environment. There would be no impact and no mitigation is required.

- e. For a project located within an airport land use plan or, where such plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?**

**No Impact.** The project site is not located in an adopted airport land use plan or within two miles of a public airport. The nearest airport is John Wayne Airport located in the City of Santa Ana, approximately 13 miles west of the project site. Implementation of the proposed project would not impact airport facilities or their operation and no mitigation is required.

- f. For a project within the vicinity of private airstrip, would the project result in a safety hazard for people residing or working in the project area?**

**No Impact.** The project site is not located in the vicinity of a private airstrip and would not result in a safety hazard for people working or residing in the project area. No impacts related to airstrips would occur and no mitigation is required.

- g. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

**No Impact.** The proposed project would not interfere with an adopted emergency evacuation or emergency response plan. All proposed construction activities would occur on the project site and would not impact access along Santiago Canyon Road. No impact would occur and no mitigation is required.

- h. Would the project expose people or structures to a significant risk or loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?**

**Less than Significant Impact.** The project site is located within a "Very High Fire Severity" zone as detailed in Figure XI-1 of the *County of Orange General Plan*, and adequate emergency access is critical to the safety of residents within the vicinity of the proposed project (County of Orange 2005). As such, the County shall inform the Contractor and all construction staff at the

pre-grade/pre-construction meeting that the project site and surrounding areas are subject to wildland fires and that every effort must be made to minimize the potential for initiating a construction-related fire through routine construction equipment inspection; use of spark arrestors on equipment; and posting of no smoking signs, among other actions. No long-term fire risks would be associated with the proposed project. Implementation of SCs 5.8-1 through SC 5.8-6 would reduce potential impacts related to wildland fires to a less than significant level.

The Orange County Fire Authority (OCFA) has approved a Fuel Modification Plan for the project that establishes requirements for access, fuel modification, building materials, and plant materials (refer to Appendix K). As stated in SC 5.8-1 and SC 5.8-2, these requirements have been incorporated into the project design and compliance would be verified by the OCFA as part of Site Plan Review.

## **5.8.2 MITIGATION PROGRAM**

### **Standard Conditions of Approval**

- SC 5.8-1** Prior to the recordation of a subdivision map (except for conveyance purposes) or the issuance of a preliminary grading permit (whichever occurs first), the applicant must provide the Manager, Permit Services with a clearance from OCFA, or other Local Fire Agency (if applicable), demonstrating approval of a conceptual or precise fuel modification plan.
- SC 5.8-2** Prior to the issuance of a precise grading permit, the applicant must provide the Manager, Permit Services with a clearance from OCFA, or other Local Fire Agency (if applicable), demonstrating approval of a precise fuel modification plan.
- SC 5.8-3** Prior to the issuance of a grading permit, the applicant must provide the Manager, Permit Services with a clearance from OCFA, or other Local Fire Agency (if applicable), indicating that a Fire Master Plan has been prepared that complies with Fire Code Chapter 5 and Guideline B-09.
- SC 5.8-4** Prior to the issuance of any grading permit (with the exception of initial mass grading of a large scale project), the applicant shall provide the Manager, Permit Services with a clearance from OCFA indicating that a Fire Master Plan has been prepared that complies with Guideline B-09 including identification of access to and within the project area. \*Note-refer to the OCFA website to obtain a copy of Guideline B-09 for information regarding the submittal requirements.
- SC 5.8-5** Prior to the issuance of a building permit, the applicant must provide the Manager, Permit Services with a clearance from OCFA allowing the introduction of combustible materials into the project area.
- SC 5.8-6** Prior to the approval of final inspection, the applicant must provide the Manager, Permit Services with a clearance from OCFA confirming that the approved fuel modification plan has been installed and completed.

## **5.9 HYDROLOGY AND WATER QUALITY**

A Hydrology Report was prepared by Trithis Engineering in 2002 detailing the existing drainage and hydrologic conditions at the project site. An Existing On-Site Storm Drain Analysis was prepared by Trithis Engineering in February 2012 analyzing the existing on-site drainage collection system to provide operational characteristics in 10- and 100-year storm events.

## 5.9.1 IMPACT ANALYSIS

- a. **Would the project violate any water quality standards or waste discharge requirements?**

**Less Than Significant Impact.** The proposed project could result in short-term impacts to Aliso Creek from construction-related activities. Storm water runoff from the Project site during construction could contain soils and sediments from these activities. Spills or leaks from heavy equipment and machinery, construction staging areas, or building sites—which typically include petroleum products such as fuel, oil and grease, and heavy metals—can also enter runoff. Construction-related discharges would be minimized through the incorporation of structural and non-structural Best Management Practices (BMPs) as required in the National Pollutant Discharge Elimination System (NPDES) State General Construction Permit issued by the California Regional Water Quality Control Board (RWQCB).

In compliance with the NPDES program, the Proposed Project would be required to incorporate post-construction BMPs to reduce the amount of pollutants introduced into the storm water drainage system on a long-term basis. The Proposed Project would implement structural BMPs to reduce pollution introduction. Implementation of SC 5.9-2 (compliance with the County's NPDES Implementation Program) and SC 5.9-1 (preparation of a Water Quality Management Plan [WQMP]), would reduce short-term water quality impacts associated with construction and long-term water quality impacts to a level considered less than significant.

- b. **Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?**

**Less Than Significant Impact.** As previously discussed in Section 3.0, Project Description, the majority of the project site has no hardscape or impervious surface. The proposed project would not substantially increase the amount of impervious surface, and thus the volume of surface water infiltrating the ground would not substantially change as a result of the proposed project. No additional structures are proposed that would interfere with groundwater recharge. Additionally, no wells would be drilled or operated. The proposed project would not have the potential to directly change the rate or flow of groundwater because it would not interfere with any known aquifers.

The proposed project site is located in the upper part of the Aliso Creek watershed, and groundwater resources within the project site are most likely limited to perched water zones within the alluvial and saturated bedrock zones immediately beneath the alluvium (Leighton and Associates, Inc. 1983). Because of the limited depth of excavation and location of groundwater resources, the Proposed Project would not deplete groundwater supplies or interfere substantially with groundwater recharge. Mitigation measures are not required.

- c. **Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?**

**Less Than Significant Impact with Mitigation.** The project site is traversed from north to south by Santiago Canyon Road and by Aliso Creek, which meanders though the site as a

natural drainage course in which several culverts and bridges have been constructed for road crossings (Trithis 2002).

The drainage area consists of 678.5 acres and varies from an elevation of 2,200 feet above mean sea level (msl) at the north end and an elevation of 1,111 feet above msl at the south end (refer to Appendix C for Hydrology Map). At present, the drainage area has undergone residential development to the east of Rancho Las Lomas, modifying the natural state of the site, which consisted of chaparral, open brush, and some live oak trees. This new development has modified the flow characteristics of two drainage structures that cross Santiago Canyon Road from the east and which discharge into Aliso Creek, which flows north to south through the project site (Trithis 2012).

The data presented in Hydrology Report was developed based on the previous as-built condition of the project site (Trithis 2002). Flow through the Rancho Las Lomas property encounters numerous structural modifications that reduce and accelerate velocities in feet per second (fps) causing numerous hydraulic jumps and headwater backup. The system could not keep itself clean and provided numerous locations for silt and debris trapping, which could further raise the flood water level over time. In addition, there is not a permanent flow in Aliso Creek through the property (Loe 2004b). As described in MM 5.9-1, the natural character of all watercourses and areas subject to flooding including riparian vegetation shall be preserved. Implementation of an Erosion and Sediment Control Plan (SC 5.9-3), as required by the County under the Orange County Grading Code (Title 7, Division 1, Article 8) would serve to reduce erosion or siltation on- or off-site.

- d. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?**

**Less Than Significant Impact with Mitigation.** As indicated above, there is not a permanent flow in Aliso Creek through the property (Loe 2004b). As part of the project, the natural character of all watercourses and areas subject to flooding including riparian vegetation shall be preserved (refer to MM 5.9-1). Implementation of an Erosion and Sediment Control Plan (SC 5.9-3), would serve to reduce erosion or siltation on- or off-site. With implementation of these measures, the project would not substantially increase the rate or amount of surface runoff and impacts would be reduced to a less than significant level.

- e. Would the project create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?**

**Less Than Significant Impact with Mitigation.** With the proposed drainage improvements, runoff from the site would not exceed the capacity of existing or planned storm water drainage systems. The data presented in Hydrology Report was developed based on the previous as-built condition of the project site (Trithis 2002). Flow through the Rancho Las Lomas property encounters numerous structural modifications that reduce and accelerate velocities in fps causing numerous hydraulic jumps and headwater backup. The current system provides numerous locations for silt and debris trapping, which could further raise the flood water level over time.

There is not a permanent flow in Aliso Creek through the property (Loe 2004b). As required by the County's Water Quality Ordinance (Title 4, Division 13 of the Codified Ordinances of the County of Orange), the proposed project would have to develop a Water Quality Management

Plan (WQMP) or Water Quality Plan (WQP) (under SC 5.9-1) to reduce potential long-term operational impacts within the project vicinity or to Aliso Creek.

During construction, storm water runoff could contain pollutants such as soils and sediments that are released during grading and excavation activities and petroleum-related pollutants due to spills or leaks from heavy equipment and machinery. The proposed project would implement erosion-control and BMPs during construction, as discussed above. In addition, other construction-related structural and non-structural BMPs would be implemented to prevent trash and debris from entering the storm drain system. These BMPs would reduce pollutant sources during construction. Implementation of MM 5.9-1 and SC 5.9-2 would reduce pollutants in the storm water during construction-related activities.

Implementation of SC 5.9-1 would reduce pollutants in storm water runoff. Impacts would be considered less than significant after mitigation with the implementation of SC 5.9-2 and SC 5.9-3.

As required in SC 5.9-4, a drainage study must be prepared prior to issuance of any grading permits. Compliance with the recommendations in the drainage study would ensure that the proposed project would not result in an increase in the amount of runoff from the site and that the proposed project can be accommodated within the existing drainage system. In addition, design provisions for the project are required prior to the issuance of any grading permits (SC 5.9-5). As required in SC 5.9-6, said improvements are required to be constructed, or provided evidence of financial security (such as bonding), in a manner meeting the approval of the Manager, Inspection. With implementation of MM 5.9-1 and SCs 5.9-1 through 5.9-6, the proposed project would not exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff and potential impacts would be reduced to a less than significant level.

**f. Would the project otherwise substantially degrade water quality?**

***Less Than Significant Impact with Mitigation.*** As previously discussed in Section 3.0, Project Description, the majority of the project site has no hardscape or impervious surface. The proposed project would not substantially increase the amount of impervious surface, and thus the volume of surface water infiltrating the ground would not substantially change as a result of the proposed project. As identified above, there is not a permanent flow in Aliso Creek through the property (Loe 2004b); however, as identified in Section 5.17 of the IS/MND related to Utilities and Service Systems, some of the existing infrastructure was developed without permits, and renovation of these structures might include a requirement for the construction of additional water quality facilities on site to catch and treat storm water. This construction would not alter the course of existing drainage. MM 5.9-1 would further serve to reduce related impacts by ensuring the natural character of all watercourses and areas subject to flooding (including riparian vegetation) would be preserved. If development takes place within these areas, the location of structures must minimize the need for channelization (i.e., walls, berms, fill, etc.). Implementation of SC 5.9-2 (compliance with the County's NPDES Implementation Program) and SC 5.9-1 (preparation of a Water Quality Management Plan [WQMP]), would reduce short-term water quality impacts associated with construction and long-term water quality impacts to a level considered less than significant. With implementation of MM 5.9-1, SC 5.9-1 and SC 5.9-2, potential impacts to water quality would be reduced to level considered less than significant.

- g. Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate map or other flood hazard delineation map?**

**Less Than Significant Impact.** Thirty-two structures on the project site are presently located above the 100-year floodplain level as shown in the hydrology report (Appendix C). One structure is located at-or-below the aforementioned 100-year floodplain. Refer to Tables 12 and 13 below.

**TABLE 12  
STRUCTURES ABOVE 100-YEAR FLOODPLAIN**

Structure Number*	Lowest Finish Floor Elevation	100-Year Water Surface Level
A	1,132.3	1,123.4
AB	1,156.7	1,146.5
AA	1,162.5	1,149.2
AE	1,138.6	1,137.6
C	1,142.2	1,133.0
D	1,143.4	1,134.9
E	1,136.5	1,133.0
F	1,137.8	1,133.7
G	1,145.5	1,143.4
H	1,156.9	1,146.5
J	1,160.5	1,151.2
K	1,155.5	1,146.0
L	1,168.3	1,165.2
N	1,176.0	1,169.2
P	1,176.4	1,171.0
Q	1,176.6	1,175.6
R	1,176.5	1,175.5
S	1,179.1	1,175.6
T	1,204.5	1,175.6
U	1,227.7	1,175.6
V	1,229.1	1,175.6
X	1,154.9	1,134.9
Y	1,154.8	1,134.9
Z	1,163.0	1,136.9
* Refer to Exhibit 4, Site Plan.		
Source: Trithis Engineering 2002.		

**TABLE 13  
STRUCTURES BELOW 100-YEAR FLOODPLAIN**

Structure Number*	Lowest Finish Floor Elevation	100-Year Water Surface Level
AG (Kiosk)	1,138.3	1,138.3

As indicated in Table 13, structure AG (Kiosk) is located at the 100-Year Floodplain level; however, this is not a habitable structure. With the implementation of SC 5.9-7 and SC 5.9-8, impacts related to flooding would be reduced to a less than significant level.

**h. Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?**

**Less Than Significant Impact.** As indicated above, structure AG (Kiosk) is located at the 100-year floodplain; however this is not a habitable structure. Implementation of SC 5.9-7 and SC 5.9-8 would further reduce impacts related to flooding to a less than significant level.

**i. Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?**

**Less Than Significant Impact.** As described previously, structure AG (Kiosk) is located within a 100-year flood hazard area; however, the structure is not a habitable structure. In addition, SC 5.9-7 and SC 5.9-8, as discussed above, would be implemented. With implementation of these mitigation measures, impacts related to a significant loss, injury, or death involving flooding as a result of the failure of a levee or dam would be reduced to a less than significant level.

**j. Would the project cause inundation by seiche, tsunami, or mudflow?**

**No Impact.** The project site is not located near any large, enclosed body of water that would cause a seiche or tsunami. The closest body of water is Lake Mission Viejo, located approximately four miles south of the project site. Therefore, there is no potential for inundation by seiche or tsunami to occur. There is no history of mudflow on the Rancho Las Lomas property.

## **5.9.2 MITIGATION PROGRAM**

### **Standard Conditions of Approval**

**SC 5.9-1** Prior to the issuance of any grading or building permits, the applicant shall submit for review and approval by the Manager, Permit Services, a Water Quality Management Plan (WQMP) specifically identifying Best Management Practices (BMPs) that will be used onsite to control predictable pollutant runoff. The applicant shall utilize the Orange County Drainage Area Management Plan (DAMP), Model WQMP, and Technical Guidance Manual for reference, and the County's WQMP template for submittal. This WQMP shall include the following:

- Detailed site and project description
- Potential stormwater pollutants
- Post-development drainage characteristics
- Low Impact Development (LID) BMP selection and analysis
- Structural and Non-Structural source control BMPs
- Site design and drainage plan (BMP Exhibit)

- GIS coordinates for all LID and Treatment Control BMPs

Operation and Maintenance (O&M) Plan that (1) describes the long-term operation and maintenance requirements for BMPs identified in the BMP Exhibit; (2) identifies the entity that will be responsible for long-term operation and maintenance of the referenced BMPs; and (3) describes the mechanism for funding the long-term operation and maintenance of the referenced BMPs.

The BMP Exhibit from the approved WQMP shall be included as a sheet in all plan sets submitted for plan check and all BMPs shall be depicted on these plans. Grading and building plans must be consistent with the approved BMP exhibit.

**SC 5.9-2**

Prior to the issuance of a certificate of use and occupancy, the applicant shall demonstrate compliance with the County's NPDES Implementation Program in a manner meeting the satisfaction of the Manager, OC Inspection, including:

- Demonstrate that all structural Best Management Practices (BMPs) described in the BMP Exhibit from the project's approved WQMP have been implemented, constructed and installed in conformance with approved plans and specifications;
- Demonstrate that the applicant has complied with all non-structural BMPs described in the project's WQMP;
- Submit for review and approval an Operations and Maintenance (O&M) Plan for all structural BMPs (the O&M Plan shall become an attachment to the WQMP);
- Demonstrate that copies of the project's approved WQMP (with attached O&M Plan) are available for each of the initial occupants;
- Agree to pay for a Special Investigation from the County of Orange for a date twelve (12) months after the issuance of a Certificate of Use and Occupancy for the project to verify compliance with the approved WQMP and O&M Plan;
- Demonstrate that the applicant has RECORDED one of the following:
  1. The CC&R's (that must include the approved WQMP and O&M Plan) for the project's Home Owner's Association;
  2. A water quality implementation agreement that has the approved WQMP and O&M Plan attached; or
  3. The final approved Water Quality Management Plan (WQMP) and Operations and Maintenance (O&M) Plan.

**SC 5.9-3**

Prior to the issuance of any grading or building permit, the applicant shall submit a Erosion and Sediment Control Plan (ESCP) in a manner meeting approval of the Manager, Permit Intake, to demonstrate compliance with the County's NPDES Implementation Program and state water quality regulations for grading and construction activities. The ESCP shall identify how all construction

materials, wastes, grading or demolition debris, and stockpiles of soil, aggregates, soil amendments, etc. shall be properly covered, stored, and secured to prevent transport into local drainages or coastal waters by wind, rain, tracking, tidal erosion or dispersion. The ESCP shall also describe how the applicant will ensure that all BMPs will be maintained during construction of any future public right-of-ways. The ESCP shall be updated as needed to address the changing circumstances of the project site. A copy of the current ESCP shall be kept at the project site and be available for County review on request.

**SC 5.9-4** Prior to the recordation of a subdivision map (except maps for financing and conveyance purposes only) or prior to the issuance of any grading permits, whichever comes first, the following drainage studies shall be submitted to and approved by the Manager, Permit Services:

- 1) A drainage study of the project including diversions, off-site areas that drain onto and/or through the project, and justification of any diversions; and
- 2) When applicable, a drainage study evidencing that proposed drainage patterns will not overload existing storm drains; and
- 3) Detailed drainage studies indicating how the project grading, in conjunction with the drainage conveyance systems including applicable swales, channels, street flows, catch basins, storm drains, and flood water retarding, will allow building pads to be safe from inundation from rainfall runoff which may be expected from all storms up to and including the theoretical 100-year flood.

**SC 5.9-5** Prior to the recordation of a subdivision map (except maps for financing and conveyance purposes only) or prior to the issuance of any grading permits, whichever comes first, the applicant shall in a manner meeting the approval of the Manager, Permit Services:

- 1) Design provisions for surface drainage; and
- 2) Design all necessary storm drain facilities extending to a satisfactory point of disposal for the proper control and disposal of storm runoff; and
- 3) Dedicate the associated easements to the County of Orange, if determined necessary.

**SC 5.9-6** Prior to the recordation of a subdivision map (except maps for financing and conveyance purposes only) or prior to the approval of final inspection, whichever occurs first, said improvements shall be constructed, or provide evidence of financial security (such as bonding), in a manner meeting the approval of the Manager, Inspection.

**SC 5.9-7** Prior to the approval of a grading permit per Zoning Code Section 7-9-113, the applicant shall submit an Elevation Certificate to the Manager, Permit Services, identifying the base flood elevation and certifying that the planned elevation of the lowest floor, including basements, is at least one (1) foot above the Base Flood Elevation (BFE). (NOTE: To eliminate FEMA

requirements for flood insurance, the lowest elevation of any part of the structure, not only the lowest floor, must be above the BFE.)

- SC 5.9-8** Prior to the final inspection approval for any building, the applicant shall complete Section "E" of the Elevation Certificate, identifying the Base Flood Elevation (BFE) and certifying that the as-built lowest floor, including basements, as constructed, is at least one (1) foot above the BFE, in a manner meeting the approval of the Manager, Permit Services. (NOTE: To eliminate FEMA requirements for flood insurance, the lowest elevation of any part of the structure, not only the lowest floor, must be above the BFE.)

### **Mitigation Measures**

- MM 5.9-1** The natural character of all watercourses and areas subject to flooding including riparian vegetation shall be preserved.

## **5.10 LAND USE AND PLANNING**

The *County of Orange General Plan* and the *Foothill/Trabuco Specific Plan* are the relevant planning documents with respect to the project site (County of Orange 2005, 1991).

### **5.10.1 IMPACT ANALYSIS**

#### **a. Would the project physically divide an established community?**

**No Impact.** The proposed Rancho Las Lomas Project would not divide an established community. The proposed project would facilitate the completion of a gazebo structure and allow three free-span bridges to be installed on the site (refer to Section 3.0, Table 1, Structures to be Developed). No impact would occur and no mitigation is required.

#### **b. Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?**

**No Impact.** Rancho Las Lomas is located entirely within unincorporated Orange County at 19191 Lawrence Canyon, Silverado, California. As such, the *County of Orange General Plan* and the *Foothill/Trabuco Specific Plan* are the relevant planning documents with respect to the project site. The project site is designated as Rural Residential use under the 2005 County of Orange Land Use Plan Map (County of Orange 2005).

Completion of this project, as detailed in Section 3.0, Project Description, would be subject to the policies and goals delineated in the aforementioned documents.

The property is bordered on the northwest and southeast by large residential estates; on the southwest by a residential tract; on the northeast by Santiago Canyon Road; and the Santiago Canyon Estates (single-family residences) beyond. The site is comprised of approximately 21.4 acres in Silverado Canyon, which is located in the Cleveland National Forest Congressional Boundary. Silverado Canyon is devoted primarily to residential use where concentration of development in canyon bottoms is emphasized in order to take advantage of better access and fire protection relative to the steep hillsides and narrow ridgelines.

According to Section III.D.12.0 of the *Foothill/Trabuco Specific Plan*, the following uses are permitted at the Rancho Las Lomas property per approval of a Use Permit by the Orange County Planning Commission pursuant to section 7-9-150 of the Codified Ordinances of the County of Orange:

- Low intensity outdoor commercial recreation,
- Wedding chapel,
- Retreat/Conference center,
- Bed and Breakfast/Inn/Guest cottages,
- Zoological garden,
- Horticultural preserve, and
- Botanical garden.

Any other use deemed consistent by the Planning Commission may also be permitted, and existing buildings can be used temporarily during the construction of new buildings. Requirements with respect to site coverage and development standards are included as part of the *Foothill/Trabuco Specific Plan*. Permits from the U.S. Department of Agriculture for the zoological gardens can be found in Appendix A.

The proposed project would facilitate the completion of a gazebo structure and allow three free-span bridges to be installed on the site (refer to Section 3.0, Table 1, Structures to be Developed). No impact would occur and no mitigation is required.

**c. Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?**

**No Impact.** The proposed project would not conflict with an applicable habitat conservation plan or natural community conservation plan for Orange County. Restoration and completion of the gazebo structure and three free-span bridges would be consistent with applicable codes. No impact would occur. Refer to Section 5.4, Biological Resources, for information regarding impacts to protected or special status species.

## **5.11 MINERAL RESOURCES**

### **5.11.1 IMPACT ANALYSIS**

**a. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?**

**No Impact.** According to the State of California, Department of Conservation, California Geological Survey – Surface Mining and Reclamation Act of 1975 (SMARA), the nearest significant mineral resources are located across Santiago Canyon Road, approximately ½ mile north of the Rancho Las Lomas property (CGS 2007). Two mines made up the Serrano Mine (later known as the Schoeppe Mine), which was in operation intermittently from 1926 to 1975, at which point all activity ceased. These mines produced clay and silica sand derived from the upper part of the Silverado Formation. The Silverado Formation does not underlie the proposed project site; bedrock at the proposed project site consists of a transitional portion of both the Vaqueros and Sespe Formations. There are no known mineral resources of economic importance contained in the formation underlying the proposed project site. Therefore, continued development of the proposed project would not result in the loss of mineral resources, and no impact would occur.

- b. Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?**

**No Impact.** As stated above, there are no known mineral resources of economic importance contained in the formation underlying the project site. Furthermore, the proposed project would not result in the loss of availability of a known mineral resource. No impact would occur and no mitigation is required.

## 5.12 NOISE

### 5.12.1 IMPACT ANALYSIS

- a. Would the project result in exposure of persons to generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

**Less Than Significant Impact.** Construction noise is related primarily to the use of diesel engine driven heavy equipment. Noise levels generated by heavy equipment can range from approximately 68 A-weighted decibels (dBA) to an excess of 100 dBA when measured at 50 feet. Average equipment noise levels are less than maximum levels because equipment is operated at full power for only part of an operating period. The duty cycle represents the fraction of time that the equipment is operated at full power. Typical duty cycles and noise levels generated by the noisiest equipment anticipated to be used for the proposed construction at Rancho Las Lomas are listed in Table 14.

**TABLE 14  
TYPICAL MAXIMUM CONSTRUCTION NOISE LEVELS**

Equipment	Noise Level (dBA) at 50 ft	Typical Duty Cycle
Backhoe	80	40%
Concrete Mixer Truck	85	40%
Dump Truck	84	40%
Excavator	85	40%
Front End Loader	80	40%
Jackhammer	85	20%
Mounted Impact Hammer (hoe ram)	90	20%
dBA: A-weighted decibels; ft: feet Source: Thalheimer 2000		

According to the County of Orange Noise Ordinance, as presented in Division 6, Article 1, Section 4-6-7 of the Codified Ordinances of the *County of Orange*, noise sources associated with construction, repair, remodeling, or grading of any real property are exempt from the quantitative noise limits of the County Noise Ordinance, provided said activities do not take place between the hours of 8:00 PM and 7:00 AM on weekdays or Saturday, or at any time on Sunday or a federal holiday. Project construction would comply with these hourly limits (SC 5.12-1). Thus, the project would comply with the standards of the County Noise Ordinance.

The highest anticipated noise levels from mobile equipment would occur during use of a hoe ram or similar equipment to demolish the existing culverts. As shown in Table 14 hoe-ram maximum noise levels ( $L_{max}$ ) at a distance of 50 feet can be as high as 90 dBA. The nearest

sensitive noise receptors are single-family dwellings west of the project site on Canyon Terrace and Canyon Ridge Drive. These homes are more than 600 feet from areas where the construction would occur. Noise reduction over this distance would be at least 22 dBA. Brief noise events of less than 70 dBA may be audible at the homes but, because they would occur intermittently, the impact would not be disturbing, excessive, or offensive and would be less than significant. SC 5.12-2 provides measures that would minimize construction noise. No mitigation is required.

**b. Would the project result in exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?**

**Less Than Significant Impact.** Groundborne vibration generated by construction projects is usually highest during pile driving and rock blasting. Neither of these activities is anticipated for the proposed project; however, construction activities would involve the use of large construction equipment. Vibration from this equipment is rarely perceived at distances greater than 25 feet. The proposed project would not use large construction equipment and there would be no sensitive receptors within 25 feet of the proposed demolition and construction activities. Vibration impacts would be less than significant. No mitigation measures are required.

**c. Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?**

**No Impact.** The proposed project would not change the frequency or intensity of the existing activities at Rancho Las Lomas. Therefore, there would be no increase in existing ambient noise levels.

**d. Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?**

**Less Than Significant Impact.** As discussed in response 12(a), the noise level during construction is likely to be audible at the closest sensitive receptor, but would not be disturbing, excessive, or offensive. The temporary noise increase would not be substantial and impacts associated with construction noise would be less than significant. Although not required to achieve a less than significant level, SC 5.12-2 provides measures that would minimize construction noise.

**e. For a project located within an airport land use plan or, where such plan has not been adopted, within two miles of a private or public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?**

**No Impact.** The project is not located within an airport land use plan. The closest airport to the project site is the John Wayne Airport located approximately 13 miles west of the project site. Project implementation would not, therefore, expose people to excessive noise levels associated with airport operations or aircraft travel. No impacts would result and no mitigation is required.

**f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?**

**No Impact.** The project is not located the vicinity of a private airstrip or heliport. Project implementation would not, therefore, expose people to excessive noise levels associated with airport operations or aircraft travel. No impacts would result and no mitigation is required.

## 5.12.2 MITIGATION PROGRAM

### Standard Conditions of Approval

- SC 5.12-1** During construction, the Project Applicant shall ensure that all noise-generating activities shall occur between 7:00 AM and 8:00 PM on weekdays and Saturdays. No noise-generating activities shall occur on Sundays or federal holidays (Codified Ordinances of the County of Orange Section 4-6-7[e]).
- SC 5.12-2** Prior to the issuance of any grading permits for the construction of the bridges, the project proponent shall produce evidence acceptable to the Manager, Building Permits Services, that:
- 1) All construction vehicles or equipment, fixed or mobile, operated within 1,000 feet of a dwelling shall be equipped with properly operating and maintained mufflers.
  - 2) All operations shall comply with Orange County Codified Ordinance Division 6 (Noise Control).
  - 3) Stockpiling and/or vehicle staging areas shall be located as far as practicable from dwellings.

Notations in the above format, appropriately numbered and included with other notations on the front sheet of the project's permitted grading plans, will be considered as adequate evidence of compliance with this condition.

## 5.13 POPULATION AND HOUSING

### 5.13.1 IMPACT ANALYSIS

- a. Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?**

**No impact.** As detailed in Section 3.0, Project Description, Rancho Las Lomas is an existing event facility, is privately owned, and serves as a popular wedding location and corporate affair venue. The facility currently has 60 employees, and there are no plans to hire additional workers. There is an existing employee cottage (with two employee residences) on the property for Ranch employees, and occasional guests that stay in the on-site guest bungalow. These residents would not be displaced or require replacement housing as a result of the proposed project. Furthermore, the function of these residences would not change with implementation of the proposed project. No impact related to population and housing would occur and no mitigation is required.

- b. Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?**

**No impact.** As indicated above, residents would not be displaced or require replacement housing as a result of the proposed project. In addition, the function of these residences would not change with implementation of the proposed project. No impacts related to population and housing would occur and no mitigation is required.

**c. Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?**

**No Impact.** As indicated previously, the proposed project would not result in the displacement of residents or require replacement housing elsewhere. No impacts related to population and housing would occur and no mitigation is required.

**5.14 PUBLIC SERVICES**

**5.14.1 IMPACT ANALYSIS**

**a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:**

**i) Fire protection?**

**Less than Significant.** Rancho Las Lomas is privately owned and serves as a private residence as well as a wedding and corporate affair venue. This multifaceted facility offers the following activities and facilities: low intensity commercial outdoor recreation with a predominately open space character; a wedding chapel; zoological gardens; botanical gardens; a retreat/banquet facility/conference center; accessory buildings and structures; a single-family dwelling; and caretaker's residences. There are 33 structures that currently exist on the property (see Exhibit 4, Site Plan). These structures include bridal quarters and a chapel; an employee cottage; a conference center with a commercial kitchen, restroom facilities, office, and storage; a garage; a ranch house; a homestead barn and two corrals; a pump house; a kiosk; a windmill; existing bridge/culvert structures within a section of Aliso Creek that extends through the property; and a water tower with signage. There are also several cages that house a number of bird species and several large felines (Bengal tigers, African servals, Canadian lynx and caracals).

The project site is served by OCFA Station No. 42, which is located at 19150 Ridgeline Road, approximately on-quarter of a mile west of the project site (OCFA 2004). This station is equipped with a Paramedic Assessment Unit Fire Engine and a standard Fire Engine. As detailed in Figure XI-1 of the *County of Orange General Plan* and the *Orange County Fire Hazard Severity Zones in SRA* map published by the California Department of Fire Services (Cal Fire), the project site is located within a "Very High Fire Severity" zone (County of Orange 2005; Cal Fire 2007). Per SC 5.8-1 and SC 5.8-2 (from Section 5.8, Hazards and Hazardous Materials), the Applicant must provide the Manager, Permit Services with a clearance from OCFA, or other Local Fire Agency (if applicable), demonstrating approval of a conceptual or precise fuel modification plan. Refer to Section 5.8, Hazards and Hazardous Materials, for additional information. In addition, the Applicant shall provide the Manager, Permit Services with a clearance from OCFA, or other Local Fire Agency (if applicable), indicating compliance with Guideline B-09 and B-06 (refer to SC 5.14-1 and SC 5.14-2 below).

As previously stated, the proposed project would facilitate the completion of the gazebo structure construction and allow three free-span bridges to be installed on the site as described in Section 3.0, Project Description. Because there would be no increase in population as a result of the proposed project, no new fire stations, equipment, or personnel would be required. There would be no increase in long-term fire risks. Impacts would be less than significant and no mitigation is required.

**ii) Police protection?**

**No Impact.** The proposed project is within the service area of the Orange County Sheriff's Department (OCSD). The closest station is the OCSD South Operations Division, which is located at 11 Journey in Aliso Viejo, located approximately seven miles southwest of the project site (OCSD 2012). Law enforcement personnel are not dispatched from fixed sites, but from patrol locations within the relevant service areas. The project would have no impact on OCSD response times or on the demand for emergency services within the project vicinity because the proposed project would not result in a change in land use or increase in population compared to that of existing conditions.

No new law enforcement stations, equipment, or personnel would be required as a result of project implementation. No impact would occur and no mitigation is required.

**iii) Schools?**

**No Impact.** The project site is located within the Saddleback Valley Unified School District (SVUSD) and is served by Trabuco Elementary, Serrano Intermediate School, and Trabuco Hills High School (County of Orange 1991; SVUSD 2008). The proposed project would not result in the construction of residential units, or otherwise result in a change in land use that would induce substantial population growth. As such, the proposed project would not result in a need for increased or altered school services. No impact would occur and no mitigation is required.

**iv) Parks?**

**No Impact.** Given that the proposed project would involve the construction of a single gazebo structure and allow three free-span bridges to be installed on the site, project construction would not result in a change of land use or otherwise induce population growth. As such, project implementation would not increase the use of, or otherwise impact, any public parks, including the nearby Plano Bluff-Top Linear Park, the Bridlewood View/Lookout Park, the Whiting Ranch Wilderness Park, and the O'Neill Regional Park, all located within the *Foothill Trabuco Specific Plan* (County of Orange 1991). No impact to parks would occur and no mitigation is required.

**v) Other public facilities?**

**No Impact.** The closest public facility to the project site is a U.S. Post Office located approximately three miles southeast of the proposed project site. It does not have the potential to be impacted as a result of project implementation. No impact would occur and no mitigation is required.

## **5.14.2 MITIGATION PROGRAM**

### **Standard Conditions of Approval**

**SC 5.14-1** Prior to the issuance of any grading or building permits allowing construction of any gate across an OCFA required emergency accessway, the applicant shall provide the Manager, Permit Services with a clearance from OCFA, or other Local Fire Agency (if applicable), indicating compliance with Guideline B-09.

**SC 5.14-2** Prior to the issuance of any grading or building permits allowing construction of any gate across an OCFA required emergency accessway requiring a remote gate opening device, the applicant shall provide the Manager, Permit Services

with a clearance from OCFA, or other Local Fire Agency (if applicable), indicating compliance with Guideline B-06.

## 5.15 RECREATION

### 5.15.1 IMPACT ANALYSIS

- a. **Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**

**No impact.** Demand for recreational facilities is primarily generated by permanent residents. The proposed project would facilitate the completion of a gazebo structure and allow three free-span replacement bridges to be installed on site, as identified in Section 3.0, Project Description. These structures would not serve as a permanent residence; as such, implementation of the proposed project would not result in population growth that would increase demand for recreation facilities, including the nearby Whiting Ranch Wilderness Park. There would be no impact to recreational facilities and no mitigation is required.

- b. **Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?**

**No Impact.** As stated previously, the proposed project would facilitate the completion of a gazebo structure and allow three free-span replacement bridges to be installed on site, as identified in Section 3.0, Project Description. The proposed project would not require the construction or expansion of existing recreational facilities. No impact to recreational facilities would occur and no mitigation is required.

## 5.16 TRANSPORTATION/TRAFFIC

A traffic study was prepared by Stantec Consulting Services, Inc. in September 2012 to identify the impact of a proposed CUP for the existing Rancho Las Lomas facility (refer to Appendix D).

### 5.16.1 IMPACT ANALYSIS

- a. **Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?**

**Less Than Significant Impact with Mitigation.** The existing average daily traffic (ADT) volume on Santiago Canyon Road is 6,140 ADT north of the project site and 6,650 ADT south of the project site.

### Trip Generation and Distribution

Traffic counts of the existing project site were conducted in 2002, 2009, and 2010 and are summarized in Table 15 below. On weekdays when no events are scheduled, the existing site currently generates an average of approximately 50 daily trips, approximately 4 of which are

generated during the AM peak hour and approximately 4 are generated during the PM peak hour based on counts collected in 2002 and 2010 (Stantec 2012).

**TABLE 15  
EXISTING SITE TRIP GENERATION SUMMARY**

Count Date	Day	AM Peak Hour			PM Peak Hour			
		In	Out	In	In	Out	Total	ADT
Weekday								
2-7-02	Thurs	2	4	6	1	2	3	36
2-8-02	Fri	3	0	3	1	1	2	50
2-11-02	Mon	0	3	0	4	0	4	35
2-12-02	Tues	0	3	3	2	5	7	53
2-13-02	Wed	4	3	7	1	4	5	51
6-25-09	Thurs	3	0	3	0	0	0	–
7-5-10	Mon	1	3	4	6	5	11	87
Weekday Average		2	2	4	2	2	4	52
Weekend								
2-10-02	Sun	–	–	–	–	–	–	31
7-3-10	Sat	–	–	–	–	–	–	93
Source: Stantec 2012.								

The Orange County Congestion Management Program (CMP) specifies that projects which generate fewer than 2,400 total daily trips, 1,600 daily trips onto a CMP arterial, or 200 daily trips onto Santiago Canyon Road are exempt from preparing a CMP Traffic Impact Analysis (TIA). Because the project generates approximately 50 daily trips, it would be exempt from preparing a CMP TIA report and/or a detailed impact analysis for Santiago Canyon Road.

The intersection of Santiago Canyon Road and Lawrence Canyon Road/Crystal Canyon Road is a two-way stop-controlled intersection. The analysis of this intersection is based on the Highway Capacity Manual (HCM) methodology for two-way stop-controlled intersections. Level of service (LOS) is based on the average delay experienced by the higher of the two stop-sign-controlled side-street approaches. The results of the peak hour intersection analysis are summarized in Table 16 below.

**TABLE 16  
EXISTING INTERSECTION ANALYSIS SUMMARY**

Intersection	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Santiago Canyon and Lawrence Canyon/Crystal Canyon	12	B	15	B
sec/veh: seconds per vehicle; LOS: level of service. Source: Stantec 2012.				

As indicated in the table above, the intersection of Santiago Canyon Road and Lawrence Canyon Road/Crystal Canyon Road is currently operating at LOS B during the AM and PM peak hours. The intersection is operating at an acceptable level of service with the existing uses.

A traffic signal warrant for the intersection of Santiago Canyon Road and Lawrence Canyon Road/Crystal Canyon Road was investigated as part of the Traffic Study (Appendix D). Installation of a traffic signal at the intersection would require a minimum of 75 vehicles exiting either the project site or Crystal Canyon Road during the peak hour based on the speed on Santiago Canyon Road. The existing peak hour volumes are well below the minimum required for installation of a traffic signal. A traffic signal is not warranted or recommended at the intersection of Santiago Canyon Road and Lawrence Canyon Road/Crystal Canyon Road.

### **Internal Circulation and Parking**

The internal circulation of the project site is comprised of at minimum 14-foot wide two-directional and 11-foot wide one-directional private roadways used only by invited guests and employees of the facility. The main entrance is gated to preclude entry and circulation by the general public. The roadways for guest use vary from 27 feet at the main gate to 11 feet in pedestrian areas. Although the roadways support two-way traffic, there is very little internal traffic. On-site motor vehicle circulation is slow (i.e., approximately 15 miles per hour [MPH]), which allows passage of opposing traffic since no parking is permitted on either side of the roadway. Rancho Las Lomas has been operating to some degree in this manner for the past 27 years, and the facility has no record of speeding or accident history. As such, the OCFA has approved the internal circulation for required fire access lanes (Stantec 2012).

Per County of Orange Zoning Code (Codified Ordinances of the County of Orange) Section 7-9-145.6[a], parking has been divided into the following three categories: (1) Residential (4 units), which requires 9 parking spaces; (2) Commercial, which requires 188 spaces on site; and (3) Handicapped spaces, which requires 6 parking spaces. A total of 231 spaces (188 valet parking spaces and 43 self-parking spaces, including 6 handicap spaces) would be provided on site. Therefore, sufficient parking would be provided on site to accommodate existing uses on the Rancho Las Lomas property. No impact to parking would occur and no mitigation is required.

### **Driveway Operation**

The main project driveway at Lawrence Canyon Road is located on an inside curve on a high-speed arterial. The sight distance of traffic exiting the site allowing the driver to see on-coming vehicles should be provided to allow sufficient time to complete a turn. At 60 mph on Santiago Canyon Road, a driver should be able to see on-coming vehicles 660 feet from the driveway per Orange County Public Facilities Resources Department (OCPFRD) Standard Plan 1117. The site distance plan for vehicles exiting the project driveway can be found in Appendix D. This plan illustrates the limited use areas where the height of landscaping would be restricted to 12 inches to provide an adequate line of sight. However, providing this line of sight would require significant oak tree and landscape removal and grading to reduce the size of the landscape berm; therefore, exiting vehicles from the main project driveway would be restricted to right turns only. Compliance with MM 5.6-2 would be required in order to reduce impacts to a less than significant level.

Since vehicles would be restricted to right turns only at the project driveway and Santiago Canyon Road is not wide enough to allow U-turns at nearby intersections south of the project, outbound vehicles toward the north would need to exit the driveway via a right turn, and then travel along Ridgeline Road to circle the project site back to Santiago Canyon Road to turn left. A raised pork chop-type median would be installed at the project driveway at Santiago Canyon Road to prohibit outbound left turns. In addition, a right-turn pocket on southbound Santiago Canyon Road would be installed at the project driveway to allow motorists to pull out of the

travel lane and slow before turning into the driveway. Compliance with MM 5.16-3 would be required in order to reduce impacts to a less than significant level.

The south driveway would be used for emergency access only and would be closed to all other traffic. Implementation of MM 5.16-4 would further reduce impacts to a less than significant level.

Implementation of MM 5.16-1 requires the Applicant to pay applicable fees for the Major Thoroughfare and Bridge Fee Program including the Foothill/Eastern Transportation Corridor, Santiago Canyon Road, and San Joaquin Hills Transportation Corridor. With implementation of the above mentioned mitigation measures, traffic impacts would be reduced to a less than significant level.

- b. Would the project conflict with an applicable congestion management program, including, but not limited to level of service standard and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?**

**Less Than Significant Impact.** As indicated above, the Orange County Congestion Management Program (CMP) specifies that projects which generate fewer than 2,400 total daily trips, 1,600 daily trips onto a CMP arterial, or 200 daily trips onto Santiago Canyon Road are exempt from preparing a CMP Traffic Impact Analysis (TIA). Because the project generates approximately 50 daily trips, it is exempt from preparing a CMP TIA report and/or a detailed impact analysis for Santiago Canyon Road. Impacts would be less than significant.

- c. Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?**

**No Impact.** The project does not propose any uses that would affect air traffic patterns either through direct increases in local population or through development of a project element that would create an aviation hazard. No impact would occur.

- d. Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections or incompatible uses (e.g., farm equipment)?**

**No Impact.** The proposed project would implement the construction of a single gazebo structure and three free-standing bridges. Design features do not propose changes to roadways or intersections, nor would they promote incompatible uses. As such, no impact would occur and no mitigation is required.

- e. Would the project result in inadequate emergency access?**

**No Impact.** Rancho Las Lomas is an existing event facility, is privately owned, and serves as a popular wedding location and corporate affair venue. No modifications to the existing circulation network have been proposed; therefore, no impact would occur related to hazards associated with roadway design features or incompatible uses. The proposed project would not involve modifications to the existing circulation network and not otherwise impact emergency access or circulation at the project site. As such, the project would not increase hazards due to a design feature and would not result in inadequate emergency access. No impact would occur.

- f. **Would the project conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?**

**No Impact.** The proposed project would not impact any existing bike lanes or bus routes, and it would not involve modifications to the existing circulation network. No impacts would occur and no mitigation is required.

## **MITIGATION PROGRAM**

### **Mitigation Measures**

**MM 5.16-1** Prior to the issuance of building permits, the applicant shall pay applicable fees for the Major Thoroughfare and Bridge Fee Program listed below, in a manner meeting the approval of the Manager, Permit Services.

- 1) Foothill/Eastern Transportation Corridor
- 2) Santiago Canyon Road
- 3) San Joaquin Hills Transportation Corridor

**MM 5.16-2** Prior to the issuance of the first grading permit, the applicant shall restrict outbound traffic at the project driveway (Lawrence Canyon Road) to right turns only, in a manner meeting the approval of the Manager, Traffic Engineering.

**MM 5.16-3** Prior to the issuance of the first grading permit, the applicant shall install a southbound right-turn pocket on Santiago Canyon Road at the project driveway (Lawrence Canyon Road), in a manner meeting the approval of the Manager, Traffic Engineering.

**MM 5.16-4** Prior to the issuance of the first grading permit, the applicant shall restrict the use of the south driveway to emergency vehicles only, in a manner meeting the approval of the Manager, Traffic Engineering.

## **5.17 UTILITIES AND SERVICE SYSTEMS**

### **5.17.1 IMPACT ANALYSIS**

- a. **Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?**

**Less than Significant Impact.** The proposed project site, as well as much of the County, is served by a comprehensive sanitary sewer system. While the proposed project would result in a slight increase in wastewater generation, any wastewater produced at the project site would ultimately be treated by facilities owned and operated by the Orange County Sanitation District (OCS). The wastewater treatment requirements issued by the San Diego RWQCB for the treatment plant were developed to ensure that adequate levels of treatment would be provided for the wastewater flows from all land uses within its service area. Impacts would be considered less than significant and no mitigation is required.

- b. Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts?**

**Less than Significant Impact.** As indicated above, the project site is served by a comprehensive sanitary sewer system. While the proposed project would result in a slight increase in wastewater generation, any wastewater produced at the project site would ultimately be treated by facilities owned and operated by the Orange County Sanitation District (OCSD). Wastewater generated from the project site would not cause existing treatment facilities to exceed capacity and no treatment facilities would need to be constructed as a result of project implementation. Impacts would be considered less than significant and no mitigation is required.

- c. Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?**

**Less than Significant Impact.** The proposed project would not substantially change the amount of storm water runoff from the project site, since the project would not result in a substantial increase in impervious surface. However, it is important to note that, as some of the existing related infrastructure was developed without permits, the proposed renovation of the structures would include positive drainage facilities (such as sloping concrete flatwork and graded earth swales) to be installed around new construction areas in order to direct all surface waters away from structure foundations and building walls. Any new storm water drainage facilities would be considered relatively small in scope due to the number of structures being renovated/constructed (1 structure, 3 bridges); as such, impacts would be less than significant.

- d. Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?**

**Less Than Significant Impact.** The proposed project is within the service area of the Trabuco Canyon Water District, which includes Trabuco Canyon, Robinson Ranch, Trabuco Highlands, Walden, Rancho Cielo, Portola Hills, Santiago Canyon Estates, and Dove Canyon. The District relies on water from wells and from other districts and, as the proposed project would not induce an increase in the permanent population of the service area, the increase in demand for water resulting from the proposed project would constitute a minor contribution to overall demand when compared to local and regional needs. As such, the net increase in water demand generated by the proposed project would be accommodated without impacting current water supplies or requiring construction or expansion of entitlements. Less than significant impact would occur and no mitigation is required.

- e. Would the project result in a determination by the wastewater treatment provider, which serves or may serve the project, that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?**

**Less Than Significant Impact.** As stated previously, the proposed project is within the service area of the Trabuco Canyon Water District. The proposed project would not induce an increase in the permanent population of the service area, and the increase in demand for water resulting from the proposed project would constitute a minor contribution to overall demand when compared to local and regional needs. As such, the net increase in water demand generated by the proposed project would be accommodated without impacting current water supplies or requiring construction or expansion of entitlements. Less than significant impacts related to wastewater would occur and no mitigation is required.

**f. Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?**

**Less than Significant Impact.** Solid waste would be disposed of at one of the Orange County Waste & Recycling's three active landfills. The closest landfills to the project site are the Frank R. Bowerman Landfill, located approximately five miles northwest of the project site and the Prima Deshecha Landfill, located approximately nine miles south of the project site. The Frank R. Bowerman Landfill is permitted to receive a daily maximum of 11,500 tons per day (TPD). The landfill is approximately 725 acres with 534 acres permitted for refuse disposal. It is scheduled to close in approximately 2053. The Prima Deshecha Landfill is permitted to accept up to 4,000 TPD. The landfill is approximately 1,530 acres with 699 acres permitted for refuse disposal. It is scheduled to close in approximately 2067 (OC Waste & Recycling 2012). Although the Frank R. Bowerman Landfill is most likely to be used, both facilities accept municipal solid waste and, due to the minimal volume of solid waste that would be generated as a result of the proposed project, impacts related to landfill capacity would be less than significant (Lopez 2008).

**g. Would the project comply with federal, state and local statutes and regulations related to solid waste?**

**No Impact.** Solid waste practices in California are governed by multiple federal, State, and local agencies which enforce legislation and regulations to ensure landfill operations minimize impacts to public health and safety and the environment. OC Waste & Recycling is obligated to obtain a Solid Waste Facilities Permit, a Stormwater Discharge Permit, and a permit to construct and operate gas management systems and meet Waste Discharge Requirements. The County of Orange Health Care Agency's Environmental Health Division (local enforcement agency (LEA) for the CalRecycle), the SCAQMD, and the San Diego RWQCB (Region 9) enforce landfill regulations related to health, air quality, and water quality, respectively. The proposed project would not inhibit OC Waste & Recycling's compliance with the requirements of each of these governing bodies and no impact would occur. As such, no impacts would result and no mitigation is required.

## **5.18 MANDATORY FINDINGS OF SIGNIFICANCE**

### **5.18.1 IMPACT ANALYSIS**

**a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?**

**Less Than Significant Impact with Mitigation.** As described in the analysis in Section 5.0, implementation of the proposed project would not degrade the quality of the environment; substantially reduce the habitats of fish or wildlife species; cause a fish or wildlife population to drop below self sustaining levels; threaten to eliminate a plant or animal; or eliminate important examples of major periods of California history or prehistory within the incorporation of the identified mitigation measures.

**b. Does the project have possible environmental effects which are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in**

**connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)?**

***Less Than Significant Impact with Mitigation.*** The project would have the potential to impact the environment; however, specific standard conditions and mitigation measures would be implemented to reduce these impacts to a less than significant level. As detailed throughout this document, potential cumulative impacts would be mitigated to a less than significant level.

**c. Does project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?**

***Less Than Significant Impact.*** As described previously in Section 3.0, Project Description, the project would serve to facilitate the completion of a gazebo structure and allow for three free-span bridges to be installed on the site. Implementation would not displace or otherwise significantly impact existing residences. All identified impacts would be reduced to less than significant levels; therefore, the project would not cause substantial adverse effects on human beings.

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